DOCUMENT RESUME

ED 162 453 EC 112 422

AUTHOR Carroll, Andrea; Purdy, Joseph
TITLE Inservice Program Development to Assist Teachers to Effectively Service Students with Exceptional Needs in the Mainstream. Final Report.
INSTITUTION Santa Barbara County Schools, Goleta, Calif.
SPONS AGENCY California State Dept. of Education, Sacramento.
PUB DATE Aug 78
NOTE 107p.

EDRS PRICE MF-$0.83 Plus Postage. HC Not Available from EDRS.
DESCRIPTORS Elementary Education; Exceptional Child Research; *Handicapped Children; Inservice Teacher Education; *Mainstreaming; *Simulation; *Teacher Attitudes

ABSTRACT

The report describes the development and validation of simulation-based inservice materials designed to positively change the attitudes of regular elementary teachers toward mainstreamed handicapped children. Results of pre and post-test comparisons on attitudes toward mainstreaming are said to indicate that the teachers scored significantly higher than a control group on a measure of the effects of mainstreaming on the teacher. Evaluation of the materials is explained to have been favorable on all three dimensions (design, content, and transfer effect). A recommendation is made to continue development and research of simulation-based teacher inservice materials, within a framework of comprehensive staff development and with investigations of the longitudinal impact on classroom practice. (CL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED162453

"INSERVICE PROGRAM DEVELOPMENT TO ASSIST TEACHERS TO EFFECTIVELY SERVE STUDENTS WITH EXCEPTIONAL NEEDS IN THE MAINSTREAM"

Andrea Carroll
Dr. Joseph Purdy

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

Prepared under Grant No. 77-75-F
Between the California State Department
of Education and the Santa Barbara
County Schools, Office of the Superintendent

Santa Barbara County Comprehensive Plan for Special Education

August, 1978

"PERMISSION TO REPRODUCE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY
Calif. State Dept. of Education
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

EC112422

TABLE OF CONTENTS

	PAGE
FOREWORD	II
ABSTRACT	III
LIST OF TABLES	IV
CHAPTER	
I. HISTORICAL OVERVIEW AND LITERATURE REVIEW	
·Least Restrictive Environment	1
·Barriers to Mainstreaming	3
·Importance of Inservice Education	5
·Attitudes Toward Mainstreaming	7
·Experential Learning versus Information-Processing	8
·Simulation/Gaming Defined	11
·Brief History of Simulation Games	11
·Simulation/Games in Education	12
·Effectiveness of Simulation Games: Research Summary	15
·Purpose of Study	18
II. METHODS	
·Workscope Area I: Needs Assessment	19
·Workscope Area 2: State-of-the-Art Search	20
·Workscope Area 3: Materials Development	21
·Workscope Area 4: Evaluation/Research Design	25
III. STATISTICAL APPROACH/ANALYSIS	
·Research Design	36
·Related Findings	46
IV. RESULTS/DISCUSSION	49
·Limitations	52
V. SUMMARY/RECOMMENDATIONS	54
REFERENCES	57
APPENDICES	

FOREWORD

Statement of Funding:

The study reported here was conducted as a part of a program of research in special education carried out during the academic year 1977-78 under the auspices of the Special Education Research Program, supported by Grant #77-75-F between the State Department of Education and the Comprehensive Plan for Special Education, Santa Barbara County Schools, Office of the Superintendent.

Disclaimer:

The full report is reproduced here in this form for distribution as a technical report under the grant, and in order to make complete findings available for others engaged in this research area. Results of this study are the sole responsibility of the investigators. Official endorsement of the California State Department of Education or the Santa Barbara County Schools Office is not implied.

Acknowledgements:

The investigators wisn to express sincere appreciation to the following persons:

- To Barbara Rollinson, Judy McDermott, Aime Parenteau, Melanie Myers, Richard Windmiller, and Lois Moore for their valuable assistance in content development.
- To Andrew Washburn, Maurice Bisheff, and Dr. Frederick Goodman for their valuable consultation regarding the simulation design process.
- To Dr. John Ryan for his valuable consultation regarding research design and evaluation.
- To the following Resource Specialists who coordinated the participation of teachers and principals from their respective schools: Anna Carrillo, Patty Fox, Anna Murray, Virginia Nolan, Cindy Fernandez, Penny Luce, Jeff Brewton, Ann Dille, and Dr. Amos Strawhun.

Our initial assurance of confidentiality to all of the regular class teachers who participated in the experimental or control groups preclude individual recognition by the school or district. But we are sincerely grateful for the time, interest, and effort that they invested in this project.

- To Dr. Blas Garza and the faculty of Franklin Elementary School, Santa Barbara City Schools - a special thanks for participating in the pilot test.
- To Marian Lynch and Virginia Alvarado for their clerical assistance.
- To the Coordinating Committee of the Santa Barbara Comprehensive Plan for Special Education for their support of the project.

And a very special thank you to Larry Schram, Assistant Superintendent, Special Education, for his continual support and encouragement.

Joseph D Purdy
Principal Investigator

Andrea Cornell
Project Director

August, 1978

ABSTRACT

This report describes a research and development project conducted during the 1977-78 academic year. The purpose of this project was to develop and validate simulation-based inservice materials which promote significant positive changes in elementary regular class teachers' attitudes toward children with exceptional needs being integrated into the regular classroom.

Sixty-three volunteer teachers, representing 12 schools in 7 districts throughout the Santa Barbara County Master Plan area, were recruited for participation in the study. These teachers were randomly assigned to either the Experimental or Control group. The Experimental group participated in an in-service session of the project-developed materials, SIM (Simulations in Mainstreaming), while the Control group teachers received no treatment.

All volunteer teachers were asked to complete an initial survey, measuring attitudes toward Mainstreaming. Using a randomized block design the teachers were grouped for the purpose of post-test comparisons into 6 groups: Experimental Groups: 1) High, 2) Medium, 3) Low entering attitudes toward Mainstreaming and Control Groups: 4) High, 5) Medium, and 6) Low entering attitudes toward Mainstreaming. After the treatment phase, all teachers were again asked to complete a more comprehensive inventory comprised of three sub-scales measuring attitudes toward the effects of Mainstreaming on 1) the handicapped child, 2) the teacher, and 3) the other children in the class. Results indicated that the Experimental group teachers scored significantly higher than Control group teachers on the sub-scale measuring the effect of Mainstreaming on the teacher. Significant differences were not found between groups on the other two sub-scales.

Participants from the pilot-test and field-test sessions were also asked to evaluate the inservice materials. Results of these evaluations were favorable on all dimensions: design, content and transfer effect. The value of SIM appears to lie in heightening teachers' interest in the topic of Mainstreaming, increasing motivation, and sensitizing them to the complexities and variables involved in the integration of children with exceptional needs.

It is recommended that development and research of simulation-based teacher inservice materials be continued, but within a framework of comprehensive staff development programs and with investigations of the longitudinal impact on classroom practice.

LIST OF TABLES/FIGURES

TABLE		PAGE
1.	Profile of Volunteer Teachers	28
2.	Map of School Districts Participating in Project	29
3.	Field-Test Evaluation Summary	33
4.	Field-Test Evaluation Summary	34
5.	Scale Summary	37
5a.	Scale Means, Sigmas, Alphas	37
5b.	Item Means, Sigmas, R(Total), R(Scale)	38
6.	Cell Means and Standard Deviations: Sub-Scale I	41
6a.	ANOVA: Sub-Scale 1	41
7.	Cell Means and Standard Deviations: Sub-Scale II	42
7a.	ANOVA: Sub-Scale II	43
8.	Cell Means and Standard Deviations: Sub-Scale III	44
8a.	ANOVA: Sub-Scale III	44
9.	Cell Means and Standard Deviations: Total Inventory Score	45
9a.	ANOVA: Total Score	46
10.	Intercorrelations	47

HISTORICAL OVERVIEW AND LITERATURE REVIEW

The California Master Plan for Special Education and Public Law 94-142 specify that all children, regardless of handicapping conditions, have the right to an appropriate public supported education in the least restrictive environment possible. In order for this legal promise to become a reality requires that regular class teachers receive the necessary training to effectively cope with exceptional children, and that special educators develop successful models for delivering this training and related support services.

Least Restrictive Environment

The concept of least restrictive environment has emerged from a long history of progressive special education practices and research. It has been upheld by a series of landmark court decisions and strengthened by the passage of federal and state laws. This historical perspective on programs for handicapped persons, from total isolation to progressive inclusion in the mainstream of education and society, is well chronicled in numerous sources and so will not be treated here in depth. (See Pasanella and Volkmor, 1976, Hewett and Watson, 1976, Reynolds and Rosen, 1976, and Reynolds and Birch, 1977.) The least restrictive environment is that environment which best meets the educational, psychological, and physical needs of a handicapped student and which is as close to that of his or her non-handicapped peers, as determined to be appropriate by parents, educators, and where feasible, the student. The least restrictive environment is more than a physical arrangement. It is an attitude, a policy and a process which includes staff expectations and competencies that are least restraining of student performance, availability and frequency of contact with normal peers, and equal educational opportunity in a physical setting that ensures maximum freedom of movement.

Public Law 94-142 (section 121a.550) states that "Each agency shall ensure that to the maximum extent appropriate, handicapped children...are educated with

children who are not handicapped. That special classes, separate schooling or other removal of handicapped children from the regular educational environment occurs only when the nature and severity of the handicap is such that education in regular classes with the use of supplementary aides and services cannot be achieved satisfactorily." While conformance to the principles of providing education in the least restrictive environment does not mean that all handicapped children will be educated in the regular program, it does emphasize the increased movement toward mainstreaming as a specific case of the least restrictive environment.

The definition of *Mainstreaming* used for this project is adapted from Project PRIME (Programmed Re-entry Into Mainstream Education: Kaufman, et al; 1973) and refers to the process of meeting the needs of exceptional children in regular classrooms on a full or part time basis, as appropriate to the specific child and class. Integration into the regular program includes three elements: 1) *temporal integration*, meaning amount of time spent in the regular program; 2) *instructional integration*, or participation in the academic environment of the regular program, and 3) *social integration*, or acceptance by classmates. Mainstreaming also implies the development and implementation of a special education support system for the successful return of and maintenance of handicapped students in the regular education program, as well as an emphasis on cooperative planning and clarification of responsibilities between regular and special education personnel. Mainstreaming does not mean the abolishment of special classes or segregated services, where these are necessary and appropriate; however, the clear implication is that many more children than in the past will be receiving full or partial services in regular classrooms. According to the Third Annual Evaluation Report on the California Master Plan for Special Education: 1976-1977, "A trend existed in the original six RLAs toward placement of pupils in

less restrictive environments. After two years of Master Plan program operation, more of the newly identified pupils with exceptional needs were being served in the Resource Specialist Program, and fewer pupils were placed in special classes and centers. More of those pupils receiving special education services were spending some portion of the school day integrated in regular classes." The report continues, "Of the total number of pupils reported as known and served, 66 percent were reported as integrated in regular classes for some portion of the school day during 1974-75, while 93 percent were reported as integrated for some portion of the day during 1976-1977... On the average these pupils spent 55 percent of the school day in the regular program." Although these figures depict the status of mainstreaming (at least in the sense of *amount of time* handicapped students are participating in regular education programs), for a relatively small proportion of the school districts in California, it is predictable that these dramatic trends toward increased integration will continue with the full implementation of Public Law 94-142 and California Assembly Bill 1250.

Barriers to Mainstreaming

However, just because an educational innovation is legally mandated and adopted, this does not automatically mean that change will be qualitatively reflected in the classroom. It cannot be assumed that a good idea will succeed on its own merit. Mahan and Chickedantz (1977), reporting on a research study of deterrents to fully effective innovations in elementary schools, identified several major obstacles: a) conflicting educational attitudes, beliefs, and values of those involved in innovation, b) fear of incompetence with new ideas, c) realization that an innovation means more work, d) a feeling that as one supports an innovation one confesses that the old way is a failure, and 3) minimal communication among all the involved implementers. This range of obstacles has been frequently cited by researchers and practitioners as important considerations

to acknowledge when promoting the practice of mainstreaming. Keogh (1976) cautions that physical placement in the regular classroom is not enough to ensure either academic achievement or social acceptance for children with exceptional needs. Despite a recognition that mainstream education places major responsibility on regular educators, few regular class teachers feel competent in educating exceptional students. A long history of territoriality exists between regular and special education. The message to regular educators has often been, "These kids are too precious and too different for you to understand, so refer them to us for highly specialized treatment." Stannard (1976) notes this phenomena when he says that,"Too many teachers have been instructed, have been very well taught, have been convinced that one of their professional duties is to identify, locate, and assist in the placement of exceptional children in special classes. We have been trained to exclude, not to accept and include." If regular classroom teachers believe they cannot teach handicapped children without an array of special methods and materials, then it is unrealistic to expect them to accept, with confidence, major responsibilities for teaching these children. It is possible that special educators themselves are largely responsible for encouraging a mystique that now presents an obstacle to the development of successful integrative programs for handicapped students.

Given the historical relationship between special and regular education and the general nature of barriers to instituting innovations in the schools, it is naive to assume that by simply integrating handicapped children into regular education programs, the benefits attributed to this practice will naturally occur. The framers of the California Master Plan for Special Education have recognized the critical need for support strategies and have provided them, notably by way of staff development programs and in the form of new support roles at the local school site - particularly the role of Resource Specialist. The Resource Special-

ist Program is designed to provide instruction and services for those pupils who are assigned to regular classroom teachers for a majority of a school day. The program also provides consultation, resource information, and material regarding individuals with exceptional needs to their parents and to regular staff members. The intent of the program is to provide technical assistance and support to the regular education program for the purpose of returning and successfully maintaining handicapped students in the least restrictive environment. One of the primary strategies for providing this technical assistance is through inservice education. Resource Specialists participate with Program Specialists and other support staff in the development and implementation of inservice programs at local and regional levels.

Importance of Inservice Education

The importance of inservice education has been widely acknowledged. According to Herman Saettler (1976) of the Division of Personnel Preparation, U.S. Office of Education, "Many elements are fundamental to the realization of national goals in education of the handicapped, but none is more important than the availability of school personnel in sufficient numbers and with appropriate competencies."

The requirement that special education services be provided to each handicapped child in the least restrictive environment makes it imperative that regular educators understand and empathize with the issues involved and are aware of appropriate strategies to insure these children their legally guaranteed educational opportunities. Without adequate personnel preparation programs, there is little assurance that the concept of mainstreaming will be properly applied. Public Law 94-142 (sec. 121a.380) requires that "Each annual (State) program plan must include a description of programs and procedures for the development and implementation of a comprehensive system of personnel development

which provides for the inservice training of *general and special* education instructional, related services and support personnel." California Law (AB1250) underscores this by requiring that staff development programs provided as part of a local comprehensive plan shall provide opportunities for *all school personnel* who are engaged in the education of handicapped children, and that these programs include the use of innovative and diverse practices which have been found to be effective.

Although the necessity for staff development programs has been widely acknowledged, several cautionary notes have been sounded. Edward Martin, chief of the federal Bureau of Education for the Handicapped, has said that, "There must be massive efforts to work with their regular teachers, not to just instruct them in the pedagogy of special education but to share in the feelings, to understand their fears, to provide them with assistance and materials, and in short to assure their success...Efforts to provide training and experiences for regular classroom teachers are not keeping pace with the efforts to mainstream. We can predict that much of this training will be rationalistic and skill oriented and fail to respond to the feeling and attitude issues (1974)." Silverman et al. (1976) extend this caution: "Too often, special education has attempted to impose changes on regular education without considering the realities in the mainstream. We are advocating a systematic approach to creating change in regular education that begins by understanding and acknowledging the constraints. Mainstream teachers' attitudes toward problem learners, their knowledge about individualizing instruction, and their receptivity to change must be recognized in designing classroom alternatives. Once the constraints to change within the mainstream have been recognized and understood, it is possible to develop approaches to individualizing instruction in mainstream classrooms that are realistic and manageable."

Attitudes Toward Mainstreaming

Overline (1976), in his research project report on attitudes toward mainstreaming, recommends that: "The California Department of Education encourage school districts to develop inservice workshops which would focus on attitudinal change as well as the technical aspects of mainstreaming. Too often, inservice focuses exclusively on technical aspects. Since attitudes are predispositions to behavior, they often must be modified before educational personnel are open to and can generalize the technical skills learned in an inservice session, to the application of these skills in an actual classroom setting."

According to Allport (1935) an "attitude" is a mental or neutral state of readiness; organized through experience, exerting a directive or dynamic influence on the individual. Kernan (1973) identifies an attitude construct as consisting of three components: (1) *cognitive*, or beliefs held about the attitude object, (2) *affective*, referring to like or dislike of the object and (3) *behavioral*, or the particular way in which an individual is disposed to act. Schorn (1976), in discussing what an attitude toward mainstreaming is, defined it as, "A relatively enduring organization of beliefs about children with various degrees and types of handicapping conditions predisposing a teacher to accept or reject these children into the regular school program." A major international study on public attitudes toward disabled persons has demonstrated that there is a common set of attitudes toward the disabled which cuts across categories of disability and situations. However, out of this general factor was differentiated a hierarchical structure of attitudes related to a number of situational factors specific to exceptionality and/or interpersonal situations (Jones,1974). There has been some evidence that teacher attitude toward the handicapped is not much different than that of the general public. Shotel et al.(1972) found that teachers generally felt more capable of programming for learning disabled and physically

handicapped children than for severely emotionally disturbed or retarded children. The key to these differential attitudes appears to be related to incidence of frustrating and difficult instructional situations versus situations where teachers feel competent, rather than to positive or negative reactions to handicapped children *per se*. Indeed, one of the primary functions of attitudes is to preserve an individual's self-esteem by organizing the environment so as to maximize opportunities for success and reward. Another factor which has been identified in studies on attitudes toward mainstreaming is that attitudes of special education personnel and regular teachers at the same school site tend to be positively correlated (Guerin and Szatlocky, 1974).

According to Mitchell (1976), "The success or failure of mainstreaming in the schools depends in large measure on three factors: 1) the competence and thus the credibility of the resource room teacher, 2) the competence of the regular teacher, and 3) the attitude of these two professionals toward each other and toward the student." Shotel et al.(1972) observed that the provision for communication and interaction among resource room and regular class teachers might considerably affect teachers' attitudes and therefore, the success of the program.

Experiential Learning versus Information - Processing

In addition to recommendations regarding the content of inservice programs for regular classroom teachers, recommendations have been made as to the most effective instructional methods for conveying this content. Although inservice education is viewed as a primary technique for upgrading, renewing or instilling new teaching skills, many teachers have found inservice programs to be inadequate, fragmented, and largely disconnected from daily classroom life. This impressionistic evidence, which comes from interviews with teachers, is corroborated by several research studies which have shown that the effectiveness of inservice

programs could not be verified on the basis of criterion variable analyses. In other words, the training did not have any significant effect in the areas intended. Devore (1971), in reviewing the literature, finds that the major difficulty with traditional teacher inservice programs is that they fail to provide for meaningful, experiential activities in which teachers can become personally involved and transfer what they have learned in a training situation to actual classroom practice. Ideas about teaching which cannot be related to overt actions are less likely to maintain a consistent meaning when the "talking stops and the teaching starts".

Coleman et al.(1973) have identified two distinct modes of learning: 1) Experiential learning and 2) Information-processing. A description of the basic steps involved in information-processing reveals that it is this instructional mode which has dominated teacher inservice education. The learning sequence is as follows: (1) *Receiving* information, 2) *Understanding* the general principle, 3) *Particularizing*, i.e., inferring a particular application from the general principle, and 4) *Acting*, or moving from the cognitive, symbolic representation of an act to its implementation. As with any methodology, there are advantages and disadvantages. The most evident advantage to the information-processing mode is the use of spoken or written words as a symbolic medium. If the symbols are well understood, they represent a crystallization of inferences which come from a broad range of experiences and thereby enormously reduce the time and effort necessary to learn something new, while allowing people to benefit from the experiences and discoveries of others. However, these symbols can also present a barrier if they are not well understood or are emotionally charged. (The term *mainstreaming* can be said to currently fall into this category of misunderstood symbols.) One of the major weaknesses in this methodology occurs as learners attempt to trans-

late from the symbolic framework of understanding and thinking to the realm of application. Another weakness exists in relation to incentives for learning. The information-processing mode depends largely on artificial or extrinsic motivation, because action comes at the end, rather than at the beginning of the learning sequence; i.e., there is little incentive for learning until the connection between the information and the action becomes clear.

In contrast to information-processing, experiential learning enlists action as the first step in the learning sequence: 1) *Acting* - learners carry out a series of actions, 2) *Understanding* the particular case, e.g., understanding the effects of the action in this particular instance, 3) *Generalizing* or understanding the overall principle seeing a connection between the actions and effects over a range of circumstances, and 4) *Acting in a new circumstance*, where the general principle becomes useful in future actions. Since action occurs at the beginning of the sequence rather than only at the end, the motivation for learning exists from the outset. If the learner is to gain his ends through the action, he must learn whatever is necessary to guide his action. However, without a bridge from the doing to the knowing, the learning is said to be less easily forgotten because associations may remain intuitive and non-verbal. For example, an experienced gambler may have various rules of thumb, various generalizations about what actions to take in particular circumstances. He can beat a probability theorist who knows the probabilities of various combinations; yet he cannot begin to verbalize his actions in terms of probabilities. Similarly, an experienced teacher may know how to successfully prepare the classroom environment for the entry of a handicapped student, but not be fully informed about the court cases and public laws mandating mainstreaming, nor the range of special education services available in a school district.

Simulation/Gaming Defined

Simulation games constitute a form of experiential learning as defined in the preceding section. A simulation is anything which simulates or models reality. Simulations can make complex situations manageable by focusing on essential social and/or physical aspects so that they may be better understood or controlled. A learning context is established in which participants respond as if they were in the actual system being simulated. That is, participants operate with rules, resources, motivations, and limitations that are analogous to those found in the "real world." The game element comes into focus with the addition of elements of competition and chance and by the operation of a set of conditions or rules of play by which the participants agree to abide in order to create an experience. Abt (1970), in reviewing a number of simulation games observed the following requirements: "All are predicated on the active involvement of participants seeking to achieve objectives in some limiting context. They illustrate dramatically real problems in real contexts and provide for the exploration of alternative strategies. They provide for communication of ideas, many of which are abstract, within the familiar context of role-playing or competition. And, equally important, they offer the participants a means of expanding their own knowledge through vicarious participation in experiences normally reserved for others."

Brief History of Simulation Games

Simulation in the broad sense of reproducing or imitating certain features of an object or process is not a new idea. Probably the first widespread use of simulation principles was in the construction of physical models for testing parts of large objects before building the real thing, e.g., testing models of ship hulls, testing stress capacity of bridges, etc. Military planners throughout the ages have used war games to simulate battle situations and test out the

feasability and likely consequences of certain strategies. Indeed, popular games such as Chess, Checkers and Go have their basis as war simulations. Viewing the literature on simulation games in its historical sequence suggests a gradual process of recognition of the potential learning functions of games - from the initial recognition of their inherent attractiveness and ability to capture interest and commitment, to recognition of the way in which favorite games mirror their surrounding environment or society. The logical next step in the sequence was to purposely apply the positive, attractive features of games to pedagogical problems to produce desired learning and/or socialization experiences. Social scientists began using simulations in constructing working, predictive models, based on symbolic rather than physical representations of individual or group processes. The growth of simulation as a technique in the social sciences has paralleled the development of accurate mathematical models and the use of high speed computers over the last decade. This has produced sophisticated simulations in such diverse fields as international relations, political science, corporation management, and urban planning.

Simulation/Games in Education

The early 60's witnessed a virtual explosion in the use of games in the classroom. Many university curriculum labs, commercial publishers, and teachers began designing and promoting simulation games as part of the total curriculum, believing that the simulation process made subject matter more real and vivid to students than other linear presentations, while effectively teaching specific cognitive and social skills. This trend extended to the area of staff development programs as well, with the development of such large-scale teacher training simulations as the "Teaching Problems Laboratory" (Cruickshank, D. et al; (1967), "Inner-City Simulation Laboratory" (Cruickshank, D. et al; 1969), "Classroom Simulator" (Twelker, P., 1969), Human Relations: One Dimension of Teaching" (Buffie, E. 1973), "The Classroom Experience Model" (Butts, D., 1969), "Learning Opportunities for Teachers" (Dollar, B. et al, 1974).

Several institutions (notably The Center for Innovation in Teaching of the Handicapped at the University of Indiana, Syracuse University, and the University Council for Educational Administration at Ohio State University)became involved in the extensive development of preservice and inservice programs for special education teachers and administrators.

In the beginning, claims of the effectiveness of simulation games as teaching tools were largely accepted on faith. The advantages of this approach were heralded with glowing and often extravagant promises. Twelker (1970), in describing the use of simulations in teacher education, stated:

"The main advantage of simulation materials is that they bridge the gap between textbook learning and the operational real-life situation. Usually students are bombarded with principles of classroom management, for example, and yet given little opportunity to exercise or apply these principles in realistic circumstances. Under these conditions, students may be able to verbalize the principles and pass tests which ask for statements of the principles as taught. The problem is that students have not had sufficient opportunity to practice or exercise the application of the principles in a variety of situations. In other words, students are not able to transfer knowledge gained from the instructional situation to the real-life situation. Simulation, which has been defined as the obtaining of the essence of something, but without the reality, is a valuable technique for increasing the probability of this transfer occurring.In essence, then, the simulation technique is based on the old adage that 'experience is the best teacher' and in our opinion, represents a powerful technique."

In addition to this claim for the increased transfer from the training situation to actual practice, Cruickshank (1971) enumerates a series of claims for the instructional, practical and motivational effectiveness of simulations in pre-

service and inservice teacher education:

1. COMPLEXITY REDUCTION: Because simulations make available only the most critical variables for manipulation, participants can understand a very complex system within a simplified framework. A well-conceived simulation is concerned only with essential tasks and functions. Lectures often lead learners through an enormous amount of frosting, and sometimes an entire training program can fail to prepare participants for what they are really supposed to do.
2. EXPERIMENTATION: Participants can test a full range of complex alternatives in order to solve problems and can alter choices appropriately based on rapidly gained feedback. In many typical learning settings, especially lectures, the environment can be totally unresponsive. No learner behavior can be tried out.
3. TELESCOPING OF TIME: Instead of waiting months or years for classroom problems to occur, they can be programmed to happen within the training period. Therein they can be scrutinized and dealt with for variable lengths of time. They can even be repeated for the trainees.
4. NON-CRITICAL ENVIRONMENT: Participants can make decisions of consequence without the defensiveness and risks associated with much of the activity that takes place in the real world.
5. ROLE PERSPECTIVE: Participants in a simulation have the rare opportunity to view a system from a role other than their real life role.
6. COST FACTOR: Simulations often provide experiences in a low-cost model of a high-cost environment. It is cheaper to provide a simulation of a classroom than to use a real one. Likewise, it is usually less expensive to train in simulated than in real environments.
7. PSYCHOLOGICALLY ENGAGING: Participants invariably remark that the

simulations were among the high points of their preparation. Any time one is forced to make decisions and bear the consequences, involvement is insured.

8. INSTRUCTIONAL EFFECTIVENESS: In addition to being highly attractive to students, simulations are as effective as traditional methods of instruction. This enthusiasm is summarized in a quote by Ohio State University Dean, L. L. Cunningham, "My personal view of simulation is that it is the most promising single innovation that we have today. Much, indeed, most of its potential remains to be activated; we have only begun to invent appropriate means for its usage." Claims of the efficacy of this methodology continued to expand in the absence of hard evidence. However, as the field evolved, so did its skeptics, and the first empirical studies were conducted.

Effectiveness of Simulation Games: Research Summary

Early research was sketchy, but the results suggested that some simulation games were not any more effective as educational devices than more traditional techniques. In the light of this data, game designers cast doubts on the validity of the studies and renewed their claims, especially in the area of increasing motivation. The number of research studies grew, but they were plagued by such weaknesses as poor design and sampling, poor operationalization of concepts, generalizations from one game to another, failure to examine the context in which the game is used, and failure to consider game and participant variables (Greenblat, 1973). Research efforts in this area have become increasingly sophisticated, spearheaded by the efforts of the Academic Games Program at the Center for Social Organization of Schools - John Hopkins University, COMEX: Center for Multidisciplinary Educational Exercises - University of Southern California, University of Michigan, Denison Simulation Center and others. A body of more accurate

knowledge about the educational effectiveness of simulation games has developed to bring about a period of relative enlightenment.

Findings of recent research can be summed up in several propositions:

1. Simulation games in general are no less effective than other instructional techniques for producing cognitive learning. In a number of instances, game participants have reported an increased "feel" for the situation simulated, a more or less intuitive awareness of the complexities and problems of the situation. Fletcher (1971) suggests that simulations serve as an integrating device for a great deal of previously known, but unrelated, isolated and for all practical purposes forgotten knowledge of the participant. The person leaves the game convinced he has learned a great deal from it, but his learning is not so much the internalizing of new information as the reorganization of material already known. Nevertheless, the game experience seemingly increases the person's "understanding" of the material. The mixed results on retention of learning as it relates to factual material would seem to indicate that simulation games are about as effective as other methods in regard to retention, and that they can be considered as complements to other methods such as lectures, discussion, recitation, drill, and individual study.
2. Simulation games are exceptionally effective motivators. The evidence is clear that games can excite, challenge, and motivate by generating enthusiasm and commitment. One of the most consistent findings is that students prefer games to other classroom activities. However, it is not clear whether or not this effect is intrinsic to the methodology or largely a result of novelty.

3. Simulation games can lead to positive changes in attitudes, perspectives and orientations, by giving participants more empathy toward those whose real-life roles they encounter in a simulated social system (e.g., empathy for ghetto residents or frustrations of the aged). However, findings in this area of affective learning have been ambiguous. Some studies have found any changes in simulation-produced attitudes to be short-lived, and in some cases, opposite of the designer's intentions. Also, the attitudes which players hold prior to the simulation can have considerable affect on what they get out of the game.
4. Simulation games seem to be effective tools for teaching decision-making and problem-solving skills. Shirts (1974) suggests that participation leads naturally into critique and analysis and from there into further model-building, as participants learn the form and content of the structure behind the simulation. Thus far the research seems to indicate that students learn these skills as well or better through simulation than through other teaching methods.
5. Variations in the characteristics of the game players and the simulation environment can produce variations in the effectiveness of simulation games as instructional devices. There can be a great amount of variation from game to game or from one play of the same game to the next.

In general, the effectiveness of a simulation game for producing changes in either attitudes or behavior depends on the degree to which it requires the players to employ knowledge or skills related to the attitude or behavior and the extent to which the simulated model accurately reflects reality. Rosenfeld (1973) cautions that although these propositions emerge out of a number of research studies conducted on a variety of simulations, they should be taken as

descriptive rather than definitive. Since simulations differ a great deal in structure, content, and procedure, and since there are great variations in the administration of any one game, specific conclusions can be applied directly to only a fraction of possible learning environments and it is most accurate to speak in generalizations about simulation/gaming. Since statements about simulation games have been so grandiose, it is wise to treat almost any supposed fact about games as if it were a hypothesis needing testing.

Purpose of Study

The purpose of this project derived from two interrelated issues concerning the claims and evidence for simulation games. Given the highly enthusiastic claims which have been put forth in favor of simulation games and given the scarcity of simulations dealing with mainstreaming, we were particularly encouraged to apply this instructional methodology in designing inservice materials for regular class teachers. However, noting the track record of controversial findings with respect to the effectiveness of simulations and the general variability in inservice programming, we were equally concerned that the project-developed materials be adequately investigated to determine if, and under what conditions, they were effective in positively altering teachers' attitudes toward mainstreaming.

The purpose of this study, then, was to develop and validate simulation-based inservice materials which promote significant positive changes in elementary regular class teachers' attitudes toward children with exceptional needs being integrated into the regular classroom. A second and related purpose was to provide Resource Specialists (and others responsible for providing inservice and technical assistance to regular class teachers) with a self-directing inservice guide to accompany the materials.

METHODS

Four major workscope areas were addressed in the process of conducting this project. In sequence, they were 1) Needs Assessment, 2) State-of-the-Art Search, 3) Materials Development, and 4) Evaluation/Research Design:

Workscope Area 1: Needs Assessment.

Goal Statement: To determine priority inservice content to be addressed by the project.

Outline of Major Strategies:

1.1 Design value-ordering exercise

1.2 Conduct exercise with regular and special educators to determine inservice needs

1.3 Confirm results of exercise by referring to other sources

Narrative Summary: The major strategy for accomplishing this goal was to design a value-ordering exercise ("At-Issue: Mainstreaming", Appendix A), whereby 20 regular and special educators in Santa Barbara County were asked to prioritize inservice content areas with reference to a comprehensive listing of attitudes, skills and factual knowledge related to mainstreaming. The results of this exercise indicated that there was an expressed need for inservice materials which focus on attitudinal change as much as on the technical aspects of mainstreaming. The priority areas subsumed under attitude change related to a) Classroom management systems, b) Correlating special education and regular education curricula, and 3) Matching learning and teaching styles. These recommendations were further substantiated by referring to several other sources. A county-wide inservice needs assessment had been conducted in Santa Barbara County in the Spring of 1977. These survey results were not used as a primary source since the needs assessment instrument had not been specifically designed to survey the issue of mainstreaming. However, all of the content areas which were identified by the

value-ordering exercise also received significant responses on this survey. Another source of confirmation was the testimony given by teachers, administrators and university personnel at hearings held in Santa Barbara in Fall 1977 by the National Education Association (NEA), special study panel, investigating the national status of education for handicapped children. The particular emphasis of these hearings was the issue of least restrictive environments.

Workscope Area 2: State-of-the-Art Search

Goal Statement: To locate research and resources related to project design and completion.

Outline of Major Strategies:

2.1 Conduct review of literature on major topics of Mainstreaming and Simulation/Gaming Design

2.2 Locate existing inservice training materials designed for regular classroom teachers re: identified priority areas

2.3 Contract for material/human resources as needed for project completion

Narrative Summary: Once the content areas for this project had been identified, a comprehensive search was made at local, state and national levels to identify as many related inservice programs/packages as possible - so as to avoid duplication. Particular emphasis was placed on locating inservice materials which utilized simulation/gaming as a primary instructional method. Several large-scale simulations, dealing primarily with special education administration and multidisciplinary team planning were located. There are numerous role-playing exercises designed to engender an appreciation for the experience and frustrations of various handicapping conditions, e.g., simulating deafness with ear plugs, blindness with blind-folds, etc. However, relatively few simulation-based inservice materials dealing directly with project priorities were located.

In addition to searching for relevant content resources, a variety of simu-

lation games based on such diverse areas as consumer protection, urban planning, military strategy, and stock market investment were identified as possible models for format design. A primary consultant relationship was established with the staff of COMEX (Center for Multidisciplinary Educational Exercises) at the University of Southern California for expertise in the field of simulation design. A "brain-trust" of teachers and program specialists was formed to give project staff continued advice, guidance and feedback regarding the form, content and feasibility of the project-developed materials.

Workscope Area 3: Materials Development

Goal Statement: To develop prototype, pilot-test and revise simulation-based inservice materials to assist regular elementary classroom teachers to successfully mainstream handicapped children.

Outline of Major Strategies:

3.1 Synthesize results of issues research, field-input, and review of existing training materials to arrive at goals, objectives and scope of simulation

3.2 Review simulation design formats and select/adapt for project

3.3 Design prototype with input from teacher advisory panel and consultant assistance

3.4 Pilot-test materials

3.5 Make revisions based on feedback

3.6 Finalize field-test version of inservice

Narrative Summary: As a result of researching the issues, conducting a needs assessment, and locating existing inservice materials and simulation design formats, the scope of the training was defined and delimited by a set of instructional objectives. A basic decision was made to focus on general principles, orientations, concepts, and frame-works as opposed to directly instructing par-

ticipants in specific skills or "textbook answers." See Appendix B for an outline of the design process which was used and Appendix C for an overview of the project-developed inservice materials, SIM (Simulation in Mainstreaming).

The project team operated on the basis of several major assumptions regarding form and content:

1. There are differences (multiple realities) in the way special education and regular education teachers perceive high and low risk and high and low payoffs. Whereas regular educators typically hold a "macro-view" - being concerned with a large group of children, special educators often hold a "micro-view" - being primarily concerned with one or a few children. Too often, special education has attempted to impose changes on regular education without considering the realities of the mainstream. It is critically important to acknowledge the constraints and priorities which operate in a mainstream classroom. Participants should be given different information and goals, corresponding to the different and often conflicting perceptions held by their real-world counterparts. In creating a model that operates realistically, both the structural elements and the differential perceptions of system participants must be simulated.
2. Teachers are the experts. They can learn from each other when provided a learning environment that encourages sharing, experimenting, questioning, analyzing, and comparing. Much of learning is based on the experience of making associations between present problems and past experiences.

3. The classroom management model, as depicted in the game, does not have to be exactly accurate. There is value in criticizing the model, because then teachers have to compare it with their own. Using a "mythical classroom" has advantages; it frees teachers to look at multiple options. Participants will reveal their teaching style and attitudes regardless, but will tend to be more experimental in this simulated setting.
4. Concerns about mainstreaming must be acknowledged. Not to do so is to propagandize and misrepresent. There is no single "right" way to mainstream; the relationship between classroom design and student outcome is complex and variable.
5. The simulation will be most effective when incorporated into a continuum of inservice activities; its usefulness will be limited otherwise.
6. Given the constraints of staff development (i.e., release time, teacher union policies, budget limitations, etc.), an inservice session should be designed which can be conveniently conducted during after-school meeting times. Abt (1970) summarizes this design challenge, "The major problem is to design simulation games which imitate reality well enough to be used, yet which are sufficiently simple to be played by classroom-size groups in short time spans without elaborate equipment."
7. Team size should be small enough to allow for active involvement in the game experience, yet large enough to allow for diverse input and exchange of ideas among the participants.

8. The game process should encourage cooperative problem-solving among team members, while allowing the motivating powers of individual and team competition to operate.
9. Learners should be allowed to interact with material in an active rather than a passive way by experiencing the results of their decisions as they encounter basic processes such as decision-making, resource allocation, communication, and negotiation.
10. The role of the simulation game-director should be to insure that the inservice is well organized and coherent and to raise facilitative questions in the debriefing round about the simulation experience and its larger implications.
11. To enhance the usefulness and flexibility of these inservice materials, the components should be modular. That is, there should be directions for inservice leaders which guide them to revise/develop new classroom or student profiles as appropriate.

Pilot-testing: Once the prototype materials of SIM had been developed, they were pilot-tested on two different occasions:

1. The National Elementary Education Association conference, "Special Education '78-The Breakthrough Year," held in San Francisco. There were 38 participants, including regular class teachers, teaching assistants, special education teachers, teacher educators, and administrators from the States of California, Florida, Georgia, Illinois, Louisiana, Oregon, and Texas.

2. Franklin Elementary School in the Santa Barbara City School system, with 38 faculty members and the school principal in attendance.

A project-developed evaluation form (see Appendix A) was used to solicit feedback and recommendations from the pilot-test participants. Based on these evaluation results, necessary revisions were made in the inservice format and materials. Revisions were made primarily in the areas of pacing, content realism and discussion questions.

Workscope Area 4: Evaluation/Research Design

Goal Statement: To evaluate the effectiveness of the project-developed inservice materials.

Outline of Major Strategies:

4.1 Locate/develop evaluation instruments
4.2 Solicit volunteer teachers from throughout Santa Barbara RLA using Resource Specialists as contact persons
4.3 Randomly assign volunteers to experimental/control groups using randomized block design
4.4 Two regional field test workshops held
4.5 Distribute follow-up special education inventory to experimental and control group teachers

Narrative Summary:

Sample Population: The population, from which volunteers for this project were selected, consisted of all elementary (K-8) regular classroom teachers employed by the 21 public elementary school districts within Santa Barbara County. The study's sample was selected in the following manner:

1. All Resource Specialists serving the 71 K-8 schools in Santa Barbara County were identified as contact persons for the study.
2. Each Resource Specialist was sent a packet of information (see Appendix E) consisting of:
   a) A letter describing the project and inviting them to participate

by gaining the commitment of at least 3 teachers at their school site to volunteer for the project.

b) A set of attitude surveys: It seemed reasonable to assume that a teacher's entering attitude toward mainstreaming would be related to the effect which could be expected from an inservice program. In order to block on this variable, each teacher was asked to complete a "Special Education Inventory." This instrument was a 10-item mini-version of the mainstreaming attitude survey used for the post-test. It was adopted, with permission, from the "Learning Handicapped Integration Inventory," developed by Dr. Frank Hewett and Dr. Philip Watson at the UCLA Special Education Research Program, 1974. The original instrument consisted of six vignettes describing children with different handicapping conditions. However, for the purposes of this project, one vignette was developed which described a Learning Handicapped child judged to be representative of the type of child served by the Resource Specialist Program. The six-choice Likert Scale format was retained from the UCLA inventory, as were most of the items. However, a few items were altered, primarily to reflect Master Plan terminology. This initial mini-survey consisted of 10 items randomly and proportionately selected from the three sub-scales which comprise the full instrument.

c) An "Inventory Number Record Form": In order to assure confidentiality, no personally identifiable teacher information was collected at the County level. This was accomplished by coding each "Special Education Inventory" with a number which signified the particular school and respondent. Each Resource Specialist was asked to keep a listing of the volunteer teachers' names and identification num-

bers. This list stayed at each school site so that particular teachers could later be identified as belonging to the Experimental or Control Group. Only the coded inventories were returned to the project director.

d) A "Principal Consent Form," to be signed by each site administrator, to indicate knowledge of the project and approval for the participation of those volunteer teachers.

e) A stamped-addressed return envelope.

3. Each District Director of Special Education was fully informed about the project and sent a complete set of the materials which were being distributed to Resource Specialists within his/her district.

4. As can be seen from Table #1, 63 teachers volunteered, representing 12 schools in 7 districts. The minimum number of teachers from any one school was 3 and the maximum number was 10. Several items of descriptive information were collected on each teacher, including a) Current Grade Level Taught, b) Years of Professional Teaching Experience, and c) Approximate Number of Hours of Special Education Course Work (preservice and/or inservice). This data is displayed by individual school and by sample composite in Table # 1.

A map of Santa Barbara County is depicted in Table #2, which shows those districts which volunteered for the project. The districts are ordered on the basis of descending size, based on 1977-78 total school enrollments. This represents a wide demographic range from moderate-sized urban to very small rural districts.

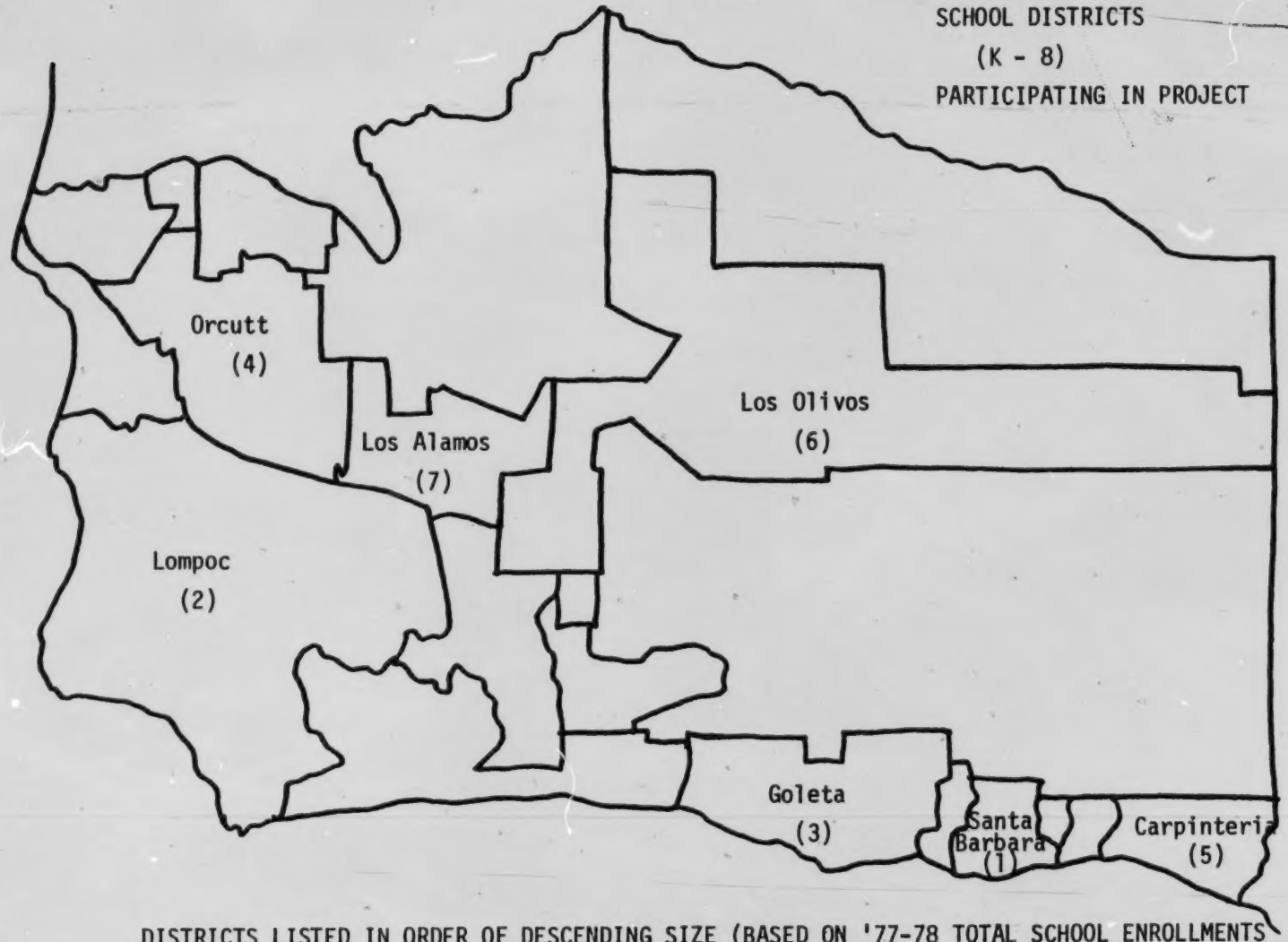
5. Once all of the completed "Special Education Inventories" were returned, they were scored and the following analysis was made:

PROFILE OF VOLUNTEER TEACHERS

DISTRICT	SCHOOL	# TEACHERS VOLUNTEERING	# YEARS TEACHING EXPERIENCE		# HOURS SPECIAL ED. TRAINING		BREAKDOWN BY NUMBER OF TEACHERS AT CURRENT GRADE LEVEL(S) TAUGHT
			RANGE	MEDIAN	RANGE	MEDIAN	
CARPINTERIA:	A	10	2-16 yrs.	4.5 yrs.	0-27 hrs.	9 hrs.	Kdgn: 2
	B	3	3-12 yrs.	9 yrs.	0-24 hrs.	10 hrs.	K-1: 3
GOLETA:	C	6	10-18 yrs.	12 yrs.	0-150 hrs.	12 hrs.	1: 5
	D	4	7-13 yrs.	10 yrs.	0-90 hrs.	4 hrs.	1-2: 2
	E	3	10-15 yrs.	13 yrs.	3-40 hrs.	22 hrs.	2: 6
SANTA BARBARA:	F	3	10-21 yrs.	18 yrs.	0-12 hrs.	6 hrs.	2-3: 3
LOMPOC:	G	10	6-23 yrs.	11 yrs	0-6 hrs.	1 hr .	3: 8
	H	4	7-25 yrs.	15 yrs.	3-8 hrs.	5 hrs.	3-4: 1
ORCUTT:	I	5	4-25 yrs.	15 yrs.	0-10 hrs.	5 hrs.	4: 3
	J	5	2-16 yrs.	11 yrs.	0-75 hrs.	1 hr.	4-5: 7
LOS ALAMOS:	K	5	3-15 yrs.	8 yrs.	0-60 hrs.	3 hrs.	5: 4
LOS OLIVOS:	L	5	2-8 yrs.	4 yrs.	0-20 hrs.	-0-	5-6: 4
							6: 8
							6-8: 2
							7: 1
							7-8: 3
							K-6: 1 (reading)
SUMMARY		63	2-25 yrs.	10.5 yrs.	0-150 hrs.	5 hrs.	TOTAL: 63 Teachers

TABLE # 1

SANTA BARBARA COUNTY
SCHOOL DISTRICTS
(K - 8)
PARTICIPATING IN PROJECT



DISTRICTS LISTED IN ORDER OF DESCENDING SIZE (BASED ON '77-78 TOTAL SCHOOL ENROLLMENTS

(1) Santa Barbara
(2) Lompoc
(3) Goleta
(4) Orcutt
(5) Carpinteria
(6) Los Olivos
(7) Los Alamos

TABLE # 2

Coefficient Alpha: .78, indicating reasonable reliability for the instrument
Score Range: 10-60 points
High Score= 52-46
Medium Score= 42-37
Low Score= 36-22

	Mean Score	Standard Deviation	T-score	Degrees of Freedom	Probability
North County Group (34 teachers)	36.411	7.092	-1.6096	56.8	0.1130
South County Group (29 teachers)	39.392	7.390	-1.6161	60.0	0.1113

Since there was no significant response difference between the North and South County Groups, these two groups were combined for the process of random assignment. (For practical purposes, the teachers had to be divided into these two "geographically reasonable" groups. For the field-test, two regional workshops were held - one in North Santa Barbara County and one in South County.)

6. All teachers were rank-ordered from high to low, according to their total score on the inventory. From this listing, teachers were alternately assigned to either the Experimental or Control Group. Returning to the South/North County breakdown, this worked out as follows:

	Experimental	Control
A. South County (Carpinteria, Santa Barbara Elementary, and Goleta districts)	15 teachers	14 teachers
B. North County (Lompoc, Orcutt, Los Alamos, and Los Olivos districts)	16	18
TOTAL	31	32

Procedures: All of the volunteer Resource Specialists were contacted by phone and sent a follow-up letter to let them know the identification numbers of those teachers at their school who had been assigned to the Experimental and Control

Groups. (Each principal and district director of special education was also sent a carbon copy of the appropriate letter(s) to keep them informed about the progress of the project.) The Resource Specialists were asked to let these teachers know their status for the project and further asked to coordinate the participation of the Experimental Group teachers at a regional workshop.

Treatment: Two regional workshops were held within two days of each other:

South County Workshop: held on May 30, 1978

In attendance were 21 participants. Of this number, 13 were from the Experimental Group (out of 15 assigned). Other participants were Resource Specialists and interested special educators. (Since it had been demonstrated during the pilot-testing that the sessions worked best with a minimum of 16 participants in a heterogeneous group, the Resource Specialists were encouraged to invite any other interested colleagues - except Control Group teachers - to the workshop, although no post-test data was collected on them.)

North County Workshop: held on June 1, 1978

In attendance were 18 participants. Of this number, only 7 were from the Experimental Group (out of 16 assigned). (This low turnout can most probably be attributed to the fact that the workshop had been arranged well in advance for May 30. However, due to an emergency teacher salary negotiation meeting called in one of the larger districts and at the request of the the District Associate Superintendent, the workshop date was changed to avoid conflict with this meeting. The change meant that many teachers who had scheduled to come on May 30th were unable to come on June 1. However, since the majority of teachers in the study were from the district in question, rescheduling seemed the least hurtful option.) Other participants at the North County workshop included Resource Specialists, student teachers, teaching aides and a school principal.

The workshop process and materials used at both sessions were identical. (See Appendix C, "Overview of SIM" and companion document, Simulation Director's Guide for details.)

Evaluation: At the end of the workshops, all participants were asked to rate the experience by completing a project-developed evaluation form. The composite evaluation results are displayed in Tables #3 and 4.

Shortly after the workshops were conducted, another packet of information was sent to each participating Resource Specialist, containing the following: (See Appendix F)

1. A letter, thanking them for their participation in coordinating and promoting the project at their school site.
2. A set of post-test "Special Education Inventories."* This was the full version of the initial inventory used in the sampling process. The vignette describing the handicapped child and the response format remained the same; however, the inventory was expanded from 10 to 30 items. These items comprised 3 sub-scales as follows:

   Scale 1: The effect of Mainstreaming on the handicapped child (13 items)

   Scale 2: The effect of Mainstreaming on the teacher (12 items)

   Scale 3: The effect of Mainstreaming on the other children in the class (5 items)

These inventories were to be distributed for completion to the Experimental and Control Group teachers at each school.

*Instrumentation: A number of instruments designed to measure teachers' attitudes toward Mainstreaming were investigated, including the "Rucker-Gable Educational Programming Scale" and the "Classroom Mainstreaming Inventory." The "Learning Handicapped Integration Inventory" was finally selected for adaptation and use, since its content deals more directly than the other instruments with the effect of mainstreaming in the regular classroom. We operated on the assumption that attitudes have a lawful, predictive relationship with behavior - that the way a person feels about an issue is positively associated with what

FIELD-TEST EVALUATION SUMMARY

TABLE # 3

FIELD-TEST EVALUATION SUMMARY

	NUMBER OF RESPONSES	PERCENTAGE RESPONDING
Did you learn anything from the content and activities of this workshop? (check one or more as appropriate)		
_____ I was engaged in learning throughout the workshop.	13	34%
_____ I was refreshed and reminded of things I already knew.	26	68%
_____ I learned little.	3	8%
_____ I gained a new perspective on mainstreaming.	10	26%
What influence will what you learned at this workshop have in your daily work? (check one or more as appropriate)		
_____ Little or no influence.	5	13%
_____ Will cause me to read, think or study in the area more.	19	50%
_____ Will cause me to attempt some new practices.	18	47%
_____ Will cause me to make major changes in the way I perform my job.	0	0

TABLE # 4

he believes about it and how he is inclined to behave toward it. Research has demonstrated that attitude measurements which are highly specific in behavioral referents, such as the "Learning Handicapped Integration Inventory," increase in predictive power. Although SIM touches a wide range of knowledge and skills tangential to the primary goal of investigating classroom management systems and the integration of handicapped children, it was not possible, due to the limitations of this project, to directly measure knowledge or skill acquisition.

3. A letter thanking each teacher who had participated in the project and instructions for completing and returning the inventory.

4. Stamped-addressed return envelopes.

This written contact was accompanied by a reminder follow-up call to each Resource Specialist.

Return Rate: Out of 63 post-test inventories which were sent out, 34 were returned. This represents a return rate of 54%. (This relatively low return rate can be explained by several factors: a) One packet of 10 inventories was lost in the mail. By the time the loss was discovered, school was out of session and since summer school had been cancelled, this left no time to send replacements. b) End of the school year is normally a demanding time for teachers. This seemed to be compounded this year with the uncertainty surrounding the potential effects of the passage of Proposition 13. c) Survey return-rates are generally low. Out of the 34 inventories returned, 5 had to be eliminated because these teachers had originally been assigned to the Experimental Group, yet did not attend the inservice session. This left 29 respondents on which to base the final statistical analyses.

STATISTICAL APPROACH/ANALYSIS

Research Design

A Post-Test Only Control Group Design was employed for this study.

Statistical Methods

The data generated by the study was analyzed by:

a. Two-Way Analysis of Variance for Unequal Numbers in Cells

b. Pearson-Product Moment Correlation

c. Spearman-Rho Correlation

Major Hypothesis

Are there significant differences in the expressed attitudes toward Mainstreaming between teachers in the Experimental Group and those in the Control Group? (i.e., Those regular class teachers who participate in the inservice program (SIM) will express more favorable attitudes toward Mainstreaming than those who do not participate.)

Dependent Variables

Attitude toward Mainstreaming as measured by sub-scale responses to the full version "Special Education Inventory" (see Table #5):

1. Sub-Scale I: Attitude toward the effect of Mainstreaming on the handicapped child
2. Sub-Scale II: Attitude toward the effect of Mainstreaming on the teacher
3. Sub-Scale III: Attitude toward the effect of Mainstreaming on the other children in the class
4. Total inventory score

Independent Variables

1. Treatment (SIM inservice)
2. No treatment
3. Entering attitude toward Mainstreaming (High, Medium or Low), as measured by responses to the short version "Special Education Inventory"

TABLE #5

Scale Summary

Scale	Contributing Items
I: Teachers' Perception of Effect on Child	1, 2, 3, 4, 10, 11, 15, 17, 19, 22, 25, 26, 29
II: Teachers' Perception of Effect on Self	5, 6, 8, 9, 12, 13, 14, 21, 23, 27, 28, 30
III: Teachers' Perception of Effect on other children	7, 16, 18, 20, 24

Before the final analysis was conducted, an item analysis was run to determine the correlation of each inventory item with its corresponding sub-scale and to the total, and to calculate internal consistency reliability estimates (alpha). Based on this analysis, items #1 and 30 were eliminated, since they were found to have low correlations with both sub-scales and total ($r = <.40$). With these two items eliminated, the scale means, sigmas and alphas were re-calculated with the following results:

TABLE #5a

Scale Means, Sigmas, Alphas

Scale Number:	1	2	3	Total Instrument
Number of Items	12	11	5	28
Means	51.10	45.45	21.62	118.17
Sigmas	9.41	8.78	3.99	20.88
Alphas	0.89	0.87	0.76	0.95

TABLE #5b

Item Means, Sigmas, R(Total), R(Scale)

Item	Scale	Mean	Sigma	R(Total)	R(Scale)
2. A child like Philip will maintain satisfactory attendance in your classroom.	1	3.690	1.417	0.416	0.473
3. Over the school year a child like Philip can be expected to make satisfactory progress in arithmetic in your classroom.	1	4.034	1.129	0.765	0.811
4. Over the school year a child like Philip can be expected to make satisfactory progress in reading in your classroom.	1	3.828	1.176	0.690	0.752
5. Even though Philip has been placed in your regular classroom, the resource specialist should assume major responsibility for dealing with learning and behavior problems that arise.	2	4.241	1.304	0.343	0.527
6. A child like Philip will likely form a positive relationship with you, the teacher.	2	4.655	0.957	0.528	0.454
7. With a child like Philip in your classroom, there will be an increase in the number of behavior problems among the other children.	3	3.448	1.162	0.683	0.766
8. With a child like Philip in your classroom, an excessive amount of time for curriculum planning will be necessary.	2	3.724	1.412	0.771	0.742
9. There will be more problems with the parent of a child like Philip than with the parents of the other children.	2	4.207	1.186	0.529	0.399
10. Placement of a child like Philip in your classroom will likely result in his becoming socially withdrawn.	1	4.793	0.804	0.487	0.527
11. A child like Philip will develop a more positive self-concept as a result of being placed in your classroom.	1	4.345	1.026	0.789	0.814
12. Referrals to the school principal for disciplinary action will probably occur more frequently for a child like Philip than for other children in your classroom.	2	3.828	1.391	0.785	0.828
13. Teaching a child like Philip will increase your overall teaching competence.	2	4.724	1.229	0.588	0.648

40

TABLE #5b (continued)

Item Means, Sigmas, R(Total), R(Scale)

Item	Scale	Mean	Sigma	R(Total)	R(Scale)
14. There will be an increase in classroom management problems with a child like Philip in your classroom.	2	3.207	1.126	0.782	0.839
15. The experience of being in your classroom will increase the chances of a child like Philip attaining a more positive and independent place in society.	1	4.379	1.215	0.742	0.739
16. A child like Philip will likely form positive social relationships with other children in your classroom.	3	4.207	1.156	0.616	0.631
17. As a result of placement in your classroom, a child like Philip will develop a more positive attitude toward school.	1	4.345	1.153	0.675	0.725
18. The presence of a child like Philip in your classroom will be a cause for complaints from the parents of the other children.	3	4.138	1.279	0.664	0.754
19. A visitor to your classroom would not be able to pick out a child like Philip on the basis of his behavior.	1	3.621	1.424	0.654	0.597
20. It is unlikely that any of the other children in your classroom will form a friendship with a child like Philip.	3	4.931	0.828	0.402	0.577
21. Even though Philip has been placed in your regular classroom, special education should assume major responsibility for dealing with learning and behavior problems that arise.	2	4.103	1.398	0.423	0.595
22. A child like Philip will not respond even to your best teaching efforts.	1	4.897	0.923	0.663	0.688
23. A child like Philip will be disruptive in your classroom.	2	3.621	1.187	0.742	0.728
24. A child like Philip in your classroom will adversely affect the other children's motivation to learn.	3	4.897	1.094	0.760	0.845
25. A child like Philip will be motivated to learn in your classroom.	1	4.414	0.891	0.861	0.875
26. The other children in your classroom will be apt to make a scapegoat of a child like Philip.	1	4.552	1.275	0.641	0.648

TABLE #5b (continued)

Item Means, Sigmas, R(Total), R(Scale)

Item	Scale	Mean	Sigma	R(Total)	R(Scale)
27. Even though Philip has been placed in your regular classroom, the school principal should assume major responsibility for dealing with learning and behavior problems that arise.	2	5.241	0.773	0.547	0.666
28. Assignment of a child like Philip to your classroom is a wise administrative decision.	2	3.897	1.269	0.792	0.812
29. The other children in your classroom will be apt to tease a child like Philip.	1	4.207	1.214	0.684	0.701

Two-Way Anova

(Method of unweighted means: unequal/nonproportional n's)

TABLE #6

Cell Means ($\bar{x}$) and Standard Deviations (s^2): Sub-Scale I

	Experimental	Control
High	$\bar{x}$ = 59.6 s^2 = 14.3 n = 5	$\bar{x}$ = 59.8 s^2 = 6.2 n = 5
Medium	$\bar{x}$ = 52.25 s^2 = 24.92 n = 4	$\bar{x}$ = 48.6 s^2 = 74.3 n = 5
Low	$\bar{x}$ = 45.67 s^2 = 67.87 n = 6	$\bar{x}$ = 39.75 s^2 = 101.58 n = 4

Anova: Sub-Scale I

(Attitude toward effect of Mainstreaming on the handicapped child)

TABLE #6a

Source	Degree of Freedom	Sum of Squares	Mean Squares	F-Ratios
Cell	5	1490.67	298.13	
Method	1	69.61	61.61	1.46
Level	2	1371.18	685.59	14.36*
Method x Level	2	49.88	24.94	.52
Within	23	1098.05	47.74	
TOTAL	28			
*p <.01				

An analysis of Table 6a reveals a significant effect by level, but not by method. As expected, there were significant post-test differences between the three teacher levels (High, Medium, and Low) for both the Experimental and Control groups. That is, the statistical control which resulted from blocking teachers on their pretest attitude scores appears to have also been a valid method for looking at possible interactions between treatment and pre-treatment attitudes. The data reveal no significant effects for the method variable. That is, the SIM inservice does not appear to have produced a difference in attitude toward the effect of mainstreaming on the handicapped child, between the Experimental and Control groups.

TABLE #7

Cell Means ($\bar{x}$) and Standard Deviations (S^2): Sub-Scale II

	Experimental	Control
High	$\bar{x}_2 = 55.6$ $s^2 = 6.8$ $n = 5$	$\bar{x}_2 = 54.5$ $s^2 = 2.3$ $n = 5$
Medium	$\bar{x}_2 = 46.25$ $s^2 = 14.92$ $n = 4$	$\bar{x}_2 = 41.41$ $s^2 = 33.3$ $n = 5$
Low	$\bar{x}_2 = 40.0$ $s^2 = 11.2$ $n = 6$	$\bar{x}_2 = 32.5$ $s^2 = 43.67$ $n = 4$

Anova: Sub-Scale II

(Attitude toward effect of Mainstreaming on the teacher)

TABLE #7a

Source	Degree of Freedom	Sum of Squares	Mean Squares	F-Ratios
Cell	5	1878.17	375.63	
Method	1	144.53	144.53	8.28*
Level	2	1685.7	842.85	48.30**
Method x Level	2	47.94	23.97	1.31
Within	23	401.37	17.45	
TOTAL	28			
*p < .01				
**p < .01				

An analysis of Table 7a reveals significant effects both by level and by method. As expected, there were significant post-test differences between the three teacher levels (High, Medium, and Low) for both the Experimental and Control groups. That is, the statistical control which resulted from blocking teachers on their pretest attitude scores appears to have also been a valid method for looking at possible interactions between treatment and pre-treatment attitudes. The data also reveal a significant effect for the method variable. That is, the SIM inservice did produce a significant positive difference in attitude toward the effect of Mainstreaming on the teacher, between the Experimental and Control groups.

TABLE #8

Cell Means ($\bar{x}$) and Standard Deviations (S^2): Sub-Scale III

	Experimental	Control
High	$\bar{x}_2$= 24.4 s^2 = 6.8 n = 5	$\bar{x}_2$= 25.6 s^2 = 3.8 n = 5
Medium	$\bar{x}_2$= 21.75 s^2 = .25 n = 4	$\bar{x}_2$= 20.4 s^2 = 17.3 n = 5
Low	$\bar{x}_2$= 19 s^2 = 18.8 n = 6	$\bar{x}_2$= 18.5 s^2 = 16.33 n = 4

Anova: Sub-Scale III

(Attitude toward effect of Mainstreaming on other children)

TABLE #8a

Source	Degrees of Freedom	Sum of Squares	Mean Squares	F-Ratios
Cell	5	197.40	39.48	
Method	1	.344	.344	.03
Level	2	189.08	94.54	8.52*
Method x Level	2	7.98	3.99	.36
Within	23	255.34	11.10	
TOTAL	38			
*p < .01				

An analysis of Table 8a reveals a significant effect by level, but not by method. As expected, there were significant post-test differences between the three teacher levels (High, Medium, and Low) for both the Experimental and Control groups. That is, the statistical control which resulted from blocking teachers on their pretest attitude scores appears to have also been a valid method for looking at possible interactions between treatment and pre-treatment attitudes. The data reveal no significant effects for the method variable. That is, the SIM inservice does not appear to have produced a difference in attitude toward the effect of Mainstreaming on other children in the class, between the Experimental and Control groups.

TABLE #9

Cell Means ($\bar{x}$) and Standard Deviations (S^2): Total Inventory Score

	Experimental	Control
High	$\bar{x}_2$= 139.6 s^2 = 34.64 n = 5	$\bar{x}_2$= 139.8 s^2 = 26.96 n = 5
Medium	$\bar{x}_2$= 120.25 s^2 = 57.188 n = 4	$\bar{x}_2$= 110.4 s^2 = 157.84 n = 5
Low	$\bar{x}_2$= 102.33 s^2 = 279.22 n = 6	$\bar{x}_2$= 95.75 s^2 = 294.19 n = 4

Anova: Total Score

(Attitude toward Mainstreaming)

TABLE #9a

Source	Degrees of Freedom	Sum of Squares	Mean Squares	F-Ratios
Cells	5	8267.16	1653.43	
Method	1	207.97	207.97	1.44
Level	2	7934.46	3967.23	27.42*
Method x Level	2	124.73	62.37	.43
Within	23	3327.99	144.70	
TOTAL	28			
*p < .01				

An analysis of Table 9a reveals a significant effect by level, but not by method. As expected, there were significant post-test differences between the three teacher levels (High, Medium, and Low) for both the Experimental and Control groups. That is, the statistical control which resulted from blocking teachers on their pretest attitude scores appears to have also been a valid method for looking at possible interactions between treatment and pre-treatment attitudes. The data reveal no significant effects for the method variable. That is, the SIM inservice does not appear to have produced a difference in overall attitude toward Mainstreaming, between Experimental and Control groups.

Related Findings

In addition to testing the major hypothesis, several other variables were investigated to see if significant relationships existed between them. The research questions for this phase of the study were as follows:

1. Is there a significant relationship between the number of years of teaching experience and total score on the "Special Education Inventory?"

2. Is there a significant relationship between the number of hours of special education inservice/preservice training and total score?

3. Is there a significant relationship between grade-level taught and total score?

4. Is there a significant relationship between the number of years of teaching experience, the number of hours of special education training and the total score?

5. Is there a significant relationship between grade-level taught and experience?

6. Is there a significant relationship between grade-level taught and training?

7. Is there a significant relationship between experience and training?

Table 10 reflects the resultant intercorrelations:

TABLE #10

	Experience	Training	Total
Grade I*	-.10	-.28	-.09
Grade II	.01	-.22	.04

	Training	Total	Degree of Freedom
Experience	.04	-.36	27

	Total
Training	-.02

*(Since many teachers teach in multi-graded classrooms, tabulations were made for 2 grade levels. For example, a teacher in a 4th-5th grade combination class would be counted as belonging to the 4th grade tally and to the 5th grade tally. In Table 10, Grade I signifies the lower of two grades taught and Grade II signifies the higher of two grades taught. Teachers of single-graded classrooms were counted in both categories.)

None of these hypothesized correlations proved to be significant at the .05 level.

RESULTS/DISCUSSION

As can be seen from the evaluation summary (Table #3), those teachers who participated in the SIM field-test rated it favorably on all dimensions. A review of the comments made by participants from the pilot-test and field-test sessions reveals several areas of perceived strength, as captured by these representative remarks:

Simulation Methodology:

- "Simulation games are marvelous for after school learning. Thank you for not lecturing."
- "Most interesting; time passed quickly and that's saying a lot!:
- "I enjoyed participating in this game."
- "Very high caliber presentation."
- "Realistic format."

Role Perspective:

- "The sharing of ideas, reasons, and points of view will be useful in approaching the teachers to make suggestions for mainstreaming or modification in the classroom to accommodate a particular student."
- "It made me look at the problems of the regular classroom teacher, many of which I have forgotten."
- "Enjoyable experience; I enjoyed the dialogue with the other teachers."
- "Appreciate having some of the teachers from school hear about Mainstreaming from someone other than me."
- "Interesting to take another's place and try to see beyond own personal prejudices."

Practice of Mainstreaming:

- "Good process for learning how to place children who have special problems."
- "Principals and teachers could do this in real situations when placing children in classes for the coming year."

. "Useful approach to initiating mainstreaming."

. "It somewhat bothered me that there was so little consensus on the 'right' style of classroom. I, personally, could not believe 'my group's choice' was not the universal solution. But that's what makes teaching an art!"

. "The practice of mainstreaming is very complex. These materials depict many of the factors involved, but are oversimplified."

These comments confirm many of the claims that have been made for simulation games, in general. The process is experienced as engaging and exciting, and there is an opportunity to experience different role perspectives in a realistic setting. Rather than teaching new factual information *per se*, simulations appear to serve as integrating devices, or frameworks, for previously known but unrelated information. Sixty-eight percent of the respondents stated that they were refreshed and reminded of things they already knew. Although there is no follow-up data to substantiate the teachers' claims that the inservice will have an influence on their daily work, 50% of the participants stated that what they learned at the workshop would cause them to read, think or study more in this area, and 47% indicated that they would attempt some new practices.

The data from the "Special Education Inventory" analysis indicates that the only area in which the SIM inservice produced statistically significant differences in attitude between the Experimental and Control groups was with regard to the effect of mainstreaming on the teachers, although not toward the effect of mainstreaming on the handicapped child or the other children in the class. There may be several explanations for these results. One of the more likely explanations is that since the inservice was held at the end of the school year, the teachers have not had an opportunity to verify newly acquired perceptions by observing the interaction between their classroom management system and student behavior. Since a significant difference was demonstrated

on the sub-scale dealing most directly with the impact of mainstreaming on the teacher, this may indicate that the inservice stimulated participants to reflect most actively on their own teaching styles and competence in designing classrooms which are accommodative of individual student differences. The SIM inservice may have served to reinforce best teaching practices and demonstrate that handicapped children can be successfully accommodated within the context of a regular classroom environment, i.e., the teaching variables that one considers in designing a program for a handicapped child are not that different than the variables to be considered in the design of any educational program. Other explanations for these results may refer to the limitations of the data collection instrument: 1) Due to the low survey return rate, there were relatively few scores represented in each cell of the ANOVA design. This produced a large variability factor, making it more difficult to demonstrate statistical significance, and 2) Although the reliability coefficient for the total "Special Education Inventory " was high (.95), the sub-scale coefficients ranged from .76 to .89, representing a source of measurement error.

It is interesting to note that none of the correlations were significant, i.e., no significant relationship was demonstrated between number of years of teaching experience, number of hours of special education training, grade-level taught and measured attitude toward Mainstreaming. Again, these results may be due to limitations of the data collection instruments. Since there was such a wide range in reported number of hours of special education training, there is some question as to whether or not teachers were doing considerable guessing in completing this particular item or forgetting which inservice programs had been sponsored by special education. Nonetheless, this factor was particularly alarming when teachers with 25 years of teaching experience, for example, reported no special education training whatsoever. If this item was reported accurately, it

is a rather dramatic reflection of the minimal level of special education inservice that has been provided to regular education teachers. The data also seem to indicate that teachers with fewer years of teaching experience, presumably recent graduates from teacher training programs, are receiving more special education related training in the preservice curriculum than in past years. It is also interesting to note that there was no significant positive relationship between number of hours of inservice training and attitude toward mainstreaming. If this item was accurately reported, the results may indicate that 1) not enough inservice has been provided for regular teachers which deals with the issue of mainstreaming or 2) the inservice that has been provided has not been persuasive in promoting positive attitudes toward mainstreaming, or 3) changes have occurred, but since there is no available baseline data, they have not been measured. Although other studies have demonstrated a relationship between grade-level taught and attitude toward mainstreaming, none was found in this study.

Limitations:

In interpreting and generalizing these results, the reader should be aware of several limitations:

1. This study was conducted with all volunteer teachers from one Master Plan area in California.
2. The final statistical analysis was based on a relatively low number of cases, i.e., 29.
3. Due to the time limitations of this study, no observational baseline data was collected to determine teachers' entering teaching styles and classroom management systems. Therefore, there is no data by which to assess any longitudinal impact on actual classroom practices.

4. These inservice materials have not been evaluated in the context of a systematic, comprehensive, ongoing staff development program. Teachers participating in the field-test had experienced a wide range of inservice programming during the year.
5. In order to maintain standardized conditions during the field-testing, project staff conducted all of the inservice sessions. Therefore, the "Simulation Director's Guide" has not been independently used or evaluated by Resource Specialist, Program Specialists, or other teacher educators.

SUMMARY/RECOMMENDATIONS

The results of this study indicate that the SIM inservice produced significant positive changes in regular classroom teachers' attitudes toward Mainstreaming. The value of SIM appears to lie in heightening teachers' interest in the topic of mainstreaming, increasing motivation, and sensitizing them to the complexities and variables involved in the integration of children with exceptional needs. The inservice experience acts as a stimulus to summarize, integrate, and illuminate previous experience while providing a common experience for reference in subsequent mainstreaming experience or instruction. However, without being part of a comprehensive, systematic, and coherent staff development program, the effectiveness of SIM is necessarily limited. Without other instruction and onsite follow-up, participation in a simulation is an incomplete learning experience. For effective utilization, simulation must be meshed with other modes of instruction and integrated into a larger educational experience. According to studies from many diverse fields, simulation is most effective when it is an integral part of a multi-faceted and mutually supporting educational strategy. "Simulation is not (and should not be promoted or embraced as) a panacea for the ills of education. It is simply another method in the repertory of methodologies available to the educator. In most circumstances, a mixed strategy probably is the most appropriate. Not least of the potential advantages of simulation is the interest and enthusiasm which it generates. This can do much to relieve the tedium often associated with more conventional modes of instruction." (Elder, 1973)

In this light, it is strongly recommended that continued research and development of simulation-based inservice materials take place within the context of a coherent staff development program. The recently established state and federal Teacher Resource Centers are suggested as a logical liaison for

this sort of activity. The continued development of experiential, innovative, and progressive inservice training materials has been endorsed by many educators. Simulation games are potentially powerful instruments in teacher training,and since there is a general scarcity of effective simulation games available for use in special education inservice, the further development and use of this method appears to hold promise. Additional research will allow users to know strengths and weaknesses of various simulation games and designers to produce better products. However, there are still many questions to be answered regarding how, when, and how much should simulation games be used, and the best ways of integrating them with other modes of teaching.

The degree to which findings on SIM are generalizable to other simulation games is simply unknown. There is no guarantee that any particular finding could be replicated on the same game in a different setting, or that negative findings are attributable to the game or to the learning environment. Were research to continue on SIM, several areas could be profitably investigated by systematically varying the game conditions to determine more precisely which aspects are effective and not so effective. By employing standardized administrative conditions, as outlined in the "Simulation Director's Guide," and using the same evaluation instruments, different variables such as (1) cognitive style of participants, (2) student and classroom profiles, (3) classroom variable descriptions, (4) learning environment, (5) time allowed for play, (6) number of participants, (7) entering teaching styles, and (8) longitudinal data re: the impact on actual classroom practice, could be controlled and systematically investigated.

However, as advocates of simulation at times have been guilty of exaggerated claims and promises, they also have tended to underestimate the time, effort, and cost required for effective development and research. The process of developing a functioning game is lengthy and difficult, inevitably involving several debugging trials and the associated reworking of materials. A smoothly

operated and effectively administered simulation may belie the enormous amount of time, energy, and effort devoted to its preparation and conduct. For this reason, it is recommended that sufficient research and development resources be allocated for the continued development of inservice programs and that simulation receive further scrutiny by researchers and educators. The results of this study are encouraging in that they suggest that the use of simulation games in staff development programs can be affective in positively changing teacher attitudes and subsequent behavior toward handicapped children being educated in regular classes.

REFERENCES

Abt., C. Serious Games, Viking Press, New York, 1970.

Allport, G. W. Attitudes.in C. Murchison (Ed.), Handbook of Social Psychology, Worcester, Clark University Press, 1935.

Assembly Bill 1250, Lanterman, Special Education: California Master Plan. Approved October 1, 1977.

Buffie, E. G. Human Relationships: One Dimension of Teaching, Center for Innovation in Teacher Education, School of Education, Indiana University, Bloomington, 1973.

Butts, D. P. The Classroom Experience Model, Research and Development Center, University of Texas, Austin, 1969.

Coleman, J. S. et al., The Hopkins games program: Conclusions from seven years of research. Center for Social Organization of Schools, The John Hopkins University, Baltimore, Maryland, 1973.

Cruickshank, D. Simulation as an instructional alternative in teacher education. Association of Teacher Educators, 1971. ED 053 067.

Cruickshank, D. et al., Inner-City Simulation Laboratory, Science Research Associates, Inc., Chicago, Ill., 1969.

Cruickshank, D. et al., Teaching Problems Laboratory. Science Research Associates, Inc., Chicago, Illinois, 1967.

Dollar, B. and Dollar, S. Learning Opportunities for Teachers, Accelerated Learning Systems, Minneapolis, 1974.

Fletcher, J.L. The effectiveness of simulation games as learning environments: A proposed program of research, Simulation and Games, Dec., 1971. EJ 50 639

Greenblat, C. S. Teaching with simulation games: A review of claims and evidence. Teaching Sociology, Sage Publications, Vol. 1, Oct., 1973.

Guerin, G. R. and Szatlocky, K. Integration programs for the mildly retarded. Exceptional Children, 1974, 41, 173-179.

Hewett, F. M. and Watson, P. C. The Learning Handicapped Integration Inventory: Assessing Regular Classroom Teachers' Perception of the Effect of Integrating Mildly Handicapped Children. Graduate School of Education, University of California, Los Angeles. Technical Report SERP 1976-A5 to California State Department, Dec. 1976.

Jones, R. The hierarchical structure of attitudes toward the exceptional. Exceptional Children, March, 1974. 430-435.

Kaufman, M. J. et al. Project PRIME (Programmed Re-Entry into Mainstream Education), Intramural Research Program. Bureau of Education for the Handicapped. U. S. Office of Education, Project No. IM-71-001, March, 1975.

Keogh, B. and Levitt, M. Special Education in the mainstream: A confrontation of limitations? Focus on Exceptional Children, V8 N1 p. 1-11, March, 1976.

Kernan, J. and Trebli, G. Attitude dynamics as a hierarchical structure. The Journal of Social Psychology, V 89, p. 193-202, April, 1973.

Mahan, J. M. and Chickdantz, P. G. Deterrents to fully effective innovations in elementary schools. Research Notes, p. 131, October, 1977.

Martin, E. Integration of the handicapped child into regular schools. in Mainstreaming: Origins and Implications. Leadership Training Institute in Special Education, University of Minnesota, 1976.

Mitchell, M. Teacher attitudes. The High School Journal, p. 302-312, April, 1976. EJ 145 802

Overline, H. Mainstreaming - Making It Happen. Department of Educational Psychology, California State University, Hayward. Technical Report No. 76-22A for California State Department of Education.

Public Law 94-142, Education for All Handicapped Act of 1975, 94th Congress, S.6

Pasanella, A. and Volkmor, C. Coming Back . . . Or Never Leaving: Instructional Programming for Handicapped Students in the Mainstream, Charles Merrill, Publ., Columbus, Ohio, 1977.

Reynolds, M. and Birch, J. Teaching Exceptional Children in All America's Schools: A First Course for Teachers and Principals, Council for Exceptional Children, 1978.

Reynolds, M. and Rosen, S. Special Education: Past, present, and future. Educational Forum, V40 N4, p. 551-562, May, 1976.

Rosenfeld, F. M. The educational effectiveness of simulation games: A synthesis of recent findings. in Gaming-Simulation, 1973.

Saettler, H. Current priorities in personnel preparation. Exceptional Children, p. 147, November, 1976.

Schorn, F. R. "A Study of an Inservice Practicum's Effects on Teachers' Attitudes About Mainstreaming." Unpublished Doctoral Dissertation, University of Massachusetts, 1976.

Shotel, J. et al. Teacher attitudes associated with the integration of handicapped children. Exceptional Children, p. 677-683, May, 1972.

Silverman, R. et al. Individualized Educational Programming for Mainstreamed Secondary Students with Learning Disabilities. Council for Exceptional Children, 1976.

Stannard, R. Mainstreaming: Some basis for caution. in O'Donnell and Bradfield (Eds.) Mainstreaming: Controversy and Consensus, Academic Therapy Publications, p. 141-149, 1976.

APPENDICES

LIST OF APPENDICES

Appendix A . . . . . At-Issue: Mainstreaming

Appendix B . . . . . Simulation Design Process

Appendix C . . . . . Overview of SIM
(Simulations in Mainstreaming)

Appendix D . . . . . Evaluation Form

Appendix E . . . . . Resource Specialist Contact Letter

Appendix F . . . . . "Special Education Inventory"

APPENDIX A

At-Issue: Mainstreaming

This instrument was developed for the purpose of prioritizing content areas to be addressed by the project materials. This format is an adaptation of the "At-Issue" planning exercise originally developed by R. Duke and C. Greenblat. This format has been successfully used in many different contexts. It allows for participants representing diverse roles to discuss a series of proposals or issues and to prioritize variables in relationship to this comprehensive framework. The items selected for this instrument represent those mainstreaming attitudes, skills, and overview knowledge which could be included in inservice materials. These items were selected by the project director after reviewing a number of existing inservice materials. The two assumptions represent composite statements of those problem areas in implementing mainstreaming programs which have been widely reported in the literature and by RLA staff. A draft of the instrument was reviewed by three teachers and two administrators. Revisions were mad based on their input. The instrument appears to have fact and content validity; although no accurate assurances as to its reliability can be given at this time. These items are not intended to be all inclusive or mutually exclusive; this is simply one way of representing the area of mainstreaming. Teams participating in the exercise were encouraged to add or delete any variables on the wheel; although no changes were actually made by the participants.

Objectives:

- to discuss, as a group, inservice training areas related to the successful implementation of mainstreaming
- to base this discussion on a set of assumptions which identify problems and issues from two different perspectives: (1) regular education or "Is the mainstream prepared for exceptional learners?" and (2) Special education or "Is the exceptional learner prepared for the mainstream?
- to select priority content areas which should be incorporated into project inservice materials using simulation as the instructional method

Process:

1. Break into teams of 5
2. Read, discuss, clarify Assumptions No. 1 and No. 2
3. Complete value ordering wheel by assigning (as a team) 100 points among the variables, in multiples of 5. These points should indicate those content areas which the team feels are priorities for inservice development to address those problem areas discussed under Assumptions No. 1 and No. 2.
4. Select a group representative to share results with total group.

MAINSTREAM

(Problems Areas that can be Addressed by Inservice Training)

ASSUMPTION I:

The mainstream is not prepared for exceptional learners,

ISSUES

- With large class sizes regular classroom teacher feel they do not have time,. energy/resources to deal with extra demands of handicapped learners.
- Lack of appropriate instructional materials.
- Architectural barriers exist which prevent exceptional learners from participating in regular program.
- Regular classroom not prepared to accomodate wide range of individual differences in learning style, rate and content.
- Parents, administrators and teachers concerned that having handicapped learners in regular class will negatively effect progress of other children.
- History of territoriality, i.e., regular educators have been taught by special educators that handicapped learners need highly specialized teaching environments/techniques.
- Other children not adequately prepared to deal constructively with exceptional children's needs; negative attitudes and misunderstanding exist.
- Conflict between goals of the school and the community for exceptional children.

ASSUMPTION II:

The exceptional learner is not prepared for the mainstream.

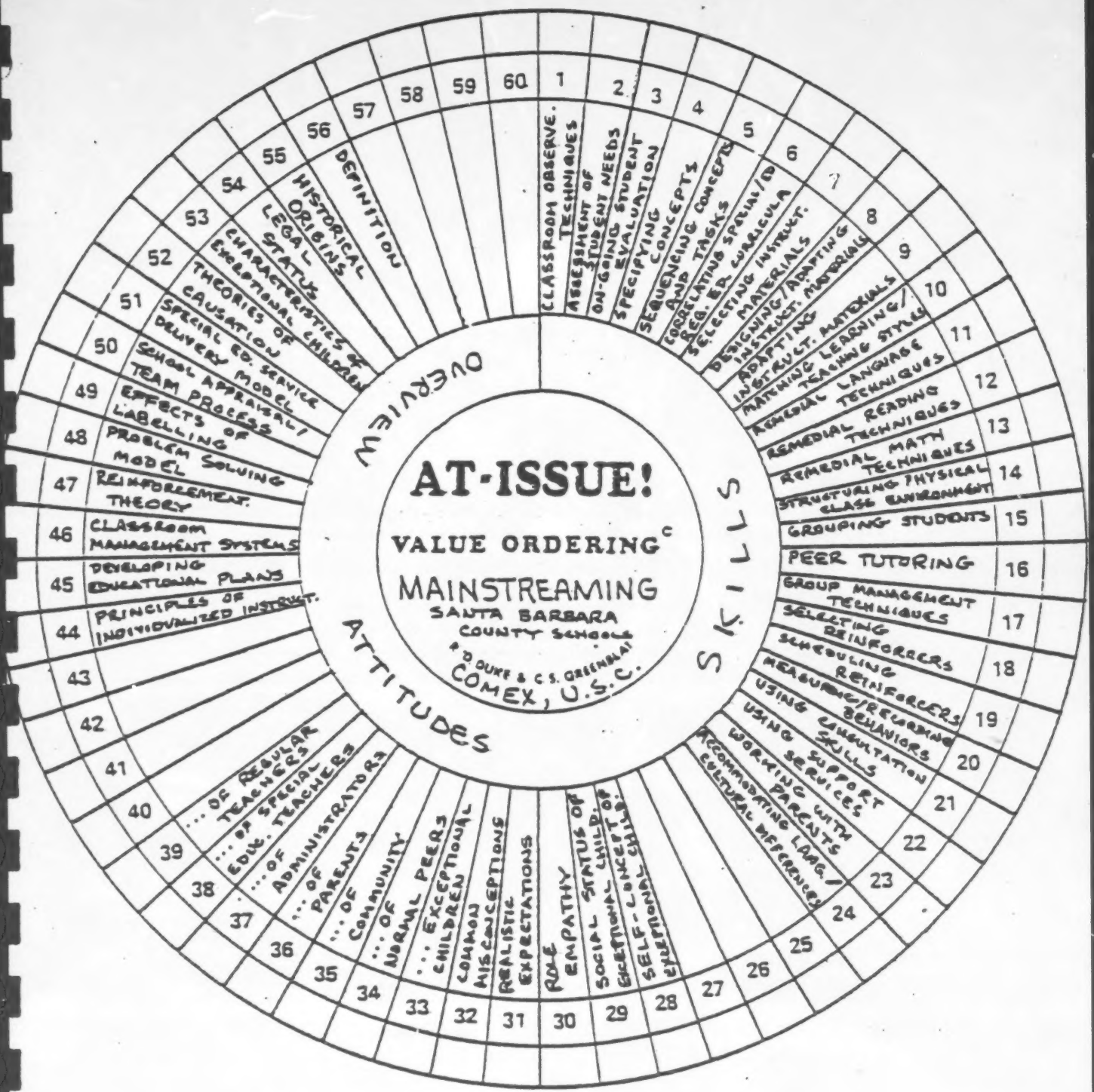
ISSUES

- Protective attitudes/lowered expectations for exceptional students create self-fulfilling prophecies.
- Student has history of failure in regular program.
- Student does not have prerequisite social skills.
- Student does not have prerequisite academic skills.
- Special education program not correlated with regular education program.

COMEX
Davidson Conference Center
University of Southern California
Los Angeles, California 90007

(213) 741-6569

Group Name _____


AT-ISSUE!
VALUE ORDERING©
MAINSTREAMING
SANTA BARBARA COUNTY SCHOOLS
© D. DUKE & C.S. GREENBALL
COMEX, U.S.C.
OVERVIEW
SKILLS
ATTITUDES
1 CLASSROOM OBSERVE. TECHNIQUES
2 ASSESSMENT OF STUDENT NEEDS
3 ON-GOING STUDENT EVALUATION
4 SPECIFYING CONCEPTS
5 SEQUENCING CONCEPTS AND TASKS
6 CORRELATING SPECIAL/ED. & REG. ED. CURRICULA
7 SELECTING INSTRUCT. MATERIALS
8 DESIGNING/ADAPTING INSTRUCT. MATERIALS
9 ADAPTING INSTRUCT. MATERIALS
10 MATCHING LEARNING/TEACHING STYLES
11 REMEDIAL LANGUAGE TECHNIQUES
12 REMEDIAL READING TECHNIQUES
13 REMEDIAL MATH TECHNIQUES
14 STRUCTURING PHYSICAL CLASS ENVIRONMENT
15 GROUPING STUDENTS
16 PEER TUTORING
17 GROUP MANAGEMENT TECHNIQUES
18 SELECTING REINFORCERS
19 SCHEDULING REINFORCERS
20 MEASURING/RECORDING BEHAVIORS
21 USING CONSULTATION SKILLS
22 USING SUPPORT SERVICES
23 WORKING WITH PARENTS
24 ACCOMMODATING LANG./CULTURAL DIFFERENCES
25 SELF-CONCEPT OF EXCEPTIONAL CHILD
26 SOCIAL STATUS OF EXCEPTIONAL CHILD
27 EMPATHY
28 ROLE
29 REALISTIC EXPECTATIONS
30 COMMON MISCONCEPTIONS
31 ... EXCEPTIONAL CHILDREN
32 ... NORMAL PEERS
33 ... COMMUNITY
34 ... PARENTS
35 ... ADMINISTRATORS
36 ... SP. EDUC. TEACHERS
37 ... REGULAR TEACHERS
38 PRINCIPLES OF INDIVIDUALIZED INSTRUCT.
39 DEVELOPING EDUCATIONAL PLANS
40 CLASSROOM MANAGEMENT SYSTEMS
41 REINFORCEMENT THEORY
42 PROBLEM SOLVING MODEL
43 LABELLING EFFECTS OF
44 TEAM PROCESS
45 SCHOOL APPRAISAL/
46 SPECIAL ED. SERVICE DELIVERY MODEL
47 CAUSATION
48 THEORIES OF
49 EXCEPTIONAL CHILDREN
50 CHARACTERISTICS OF
51 LEGAL STATUS
52 HISTORICAL ORIGINS
53 DEFINITION
54 55 56 57 58 59 60

Appendix B

Simulation Design Process

1. Define the problem area to be simulated.
2. Define the objective and scope of the simulation.
3. Define the people, and organizations involved.
4. Define the motives and purposes of the players.
5. Define the resources available to the players.
6. Determine the transactions to be simulated and the decision rules to be followed.
7. Formulate the evaluation method.
8. Develop simulation/game prototype.
9. Try out and modify prototype.

Simulation Games Variables Checklist

1. Type of objective(s)

   Cognitive
   Affective
   Psychomotor

2. Multidimensionality of objectives

   Unidimensional
   Multidimensional

3. Model on which simulation is based

Fictional	Simple	Abstract
Real life	Complex	Concrete

4. Fidelity to model

   High
   Low

5. Amount of skill required to win

   Little
   Much

6. Topic (subject matter)

7. Pregame strategies for winning

   Included
   Not included

8. Intragame strategies required for winning

   Simple to acquire
   Difficult to acquire

9. Number of decision-making entities

   Few
   Many

10. Information input sources

Few	Instructor
Many	Scenario

11. Difficulty or complexity of information input

    Easy
    Difficult

12. Information output locations

Few	Instructor
Many	Messages from teams or players

13. Resource locations

Few	Instructor
Many	Written Materials
	Other people

14. Amount of information exchanged by decision-making entities

    Little
    Much

15. Importance of chance or random factors

    Little
    Much

16. Time

    Set length
    Open-ended

17. Operations required of decision-making entities

18. Game periods

    One
    Multiple

19. Opportunities for cheating

None
Many

20. Final score (winners and losers announced)

Given
Not given

21. Selection and modification of goals

Learner controlled
Fixed

22. Amount of trust required of players

Minimum
Maximum

23. Belief in control of destiny

Promoted by game
Hindered by game

24. Type of game

Showdown (Player against system without interference from others)
Strategy (Player against player with interference)
Combination (Strategic exchanges before showdown)

25. Specificity of rules and context

Non-structured (free)
Highly structured (rigid)

26. Intragame prompting

Present	Teacher specified and presented
Absent	Teacher specified, learner presented
	Learner elicited

27. Referees or umpires

Present	Intervention allowed
Absent	Intervention not allowed

Player Variables

1. Number per game

2. Number per team

   One
   Multiple
   Variable

3. Age

4. Sex

5. Composition of teams in terms of age, sex, ability, etc.

   Homogeneous
   Heterogeneous

6. Number of roles per player

   Single
   Multiple

7. Permanency of team membership

   Monolithic
   Splinterable

8. Assignment of roles

Private	Voluntary
	Assigned by teacher randomly
Public	Assigned on basis of prior test

9. Equality of players (initial placement in teams, size of teams, opportunities and handicaps)

   Equal
   Nonequal

10. Mode of operation between team members

    Competitive
    Cooperative
    Mixed

11. Mode of operation between teams

    Competitive
    Cooperative
    Mixed

12. Grade in school

13. Predisposition (liking of game technique)

    Low
    High

14. Previous game experience

    Low
    High

15. Team assignment

    Voluntary
    Involuntary

16. Advisors to players

    Present
    Absent

17. Role-player characteristics, e.g., verbal ability, occupation, learning style

Player Response (Moves) Variables

1. Range of moves per player

    Single
    Multiple

2. Mode of move

    Oral
    Written
    Psychomotor (e.g., advance of pawn on board)
    Combination

3. Amount of risk in player move

    None
    Much

4. Number of contingencies involved in each player move

    One
    Multiple

5. Permanence of move

    Irrevocable
    Reversable
    Variable

6. Number of constraints involved in each move

    Few
    Many

7. Number of moves per time period

   One
   Multiple

8. Importance of move in terms of long-range influence

   Little
   Much

Move Consequences (Feedback) Variables

1. Potential for surprise

   None
   Much

2. Mode of feedback

   Oral
   Written
   Psychomotor
   Combination

3. Number of feedback inputs

   One
   Multiple

4. Potential for reward

   None
   Much

5. Potential for censure (loss)

   None
   Much

6. Control exercised by players over consequences

   Little
   Much

7. Use to determine subsequent moves

   None
   Major determiner

Briefing Variables

1. Timing

   Day before game
   Immediately before game

2. Content

   Rules of the game
   Instructions for play
   Example of play

3. Administrator

   Instructor
   Students

Game Evaulation (Debriefing) Variables

1. Timing

   Day after game
   Immediately after game

2. Person in charge

   Instructor
   Student

3. Strategy for defining

   Inductive
   Deductive
   Expositional
   Discovery

4. Length

   Long
   Short

Administrator(s) Variables

1. Number per game

2. Requisite knowledge, attitudes, or skills required

3. Type

   Instructor
   Student
   Mixed

4. Role

   Before
   During
   After

Equipment Variables

1. Time pieces

2. Scoring apparatus or helps

3. Game apparatus

   Board(s) and game pieces
   Money
   Scoring pieces
   Name tags
   Props

Appendix C

OVERVIEW of SIM (Simulations in Mainstreaming)

Goal of SIM: To investigate the relationship between various aspects of classroom management* and the successful integration of handicapped students into the regular education program.

Range of Instructional Objectives:

1. To understand the relationships among classroom variables, including:
   a. Physical Environment
      . Facilities
      . Student grouping
      . Movement within environment
   b. Curriculum
      . Content
      . Rate
      . Evaluation methods
   c. Instructional style
      . Materials
      . Cultural relevance
      . Instructional methods
   d. Classroom Management Systems
      . Classroom organization
      . Reinforcement practices

   and the successful accommodation of a range of individual student differences.
2. To identify aspects of a handicapped student's educational program which may be increased, decreased or maintained in order to facilitate mainstreaming.
   . To identify student behaviors that are necessary for effective functioning in a target classroom.
   . To assess the degree of compatibility between a handicapped student and a target classroom.
   . To identify areas in which special education can assist in the successful mainstreaming of a handicapped student into a target classroom.

3. To identify aspects of regular classroom management that may be increased, decreased, or maintained in order to facilitate mainstreaming.
4. To increase positive attitudes toward the practice of mainstreaming.
   . To decrease anxiety associated with programming for handicapped students.
   . To recognize the benefits for both handicapped learners and non-handicapped learners as a result of mainstreaming.

* Classroom Management is that set of activities by which the teacher promotes appropriate student behavior and eliminates inappropriate student behavior, develops good interpersonal relationships and a positive socioemotional climate, and establishes and maintains an effective and productive classroom organization. Classroom management also includes that set of instructional management activities intended to facilitate the students' achievement of specific educational objectives. Diagnosing learner needs, planning lessons, presenting information, asking questions, and evaluating learner progress are examples of instructional activities. Managerial activities are intended to create and maintain conditions in which instruction can take place effectively and efficiently. Adopted from Wilbur Weber (Classroom Teaching Skills: A Handbook, 1977).

SIM

(Simulations In Mainstreaming)

ROUNDS	GOALS	PARTICIPANTS	MATERIALS	TIMELINE
ROUND I	R-Teams: From the perspective of a regular class teacher, to select that set of classroom conditions which will promote maximum success for the majority of students in a class. S-Teams: From the perspective of a special education teacher, to select that set of classroom conditions which will promote maximum success for a handicapped child integrated into a regular classroom.	A minimum of 2 teams with 4 players each (all players on a team assume a single role: either regular or special education teacher).	*Game-directed guide *Group assignment cards *Table labels *Composite classroom board *Classroom profile (R-Teams) *Student profile(s) (S-Teams) *Packet of classroom variable cards *Player "TOTE" cards *Audio-tape (optional) *Goal statement charts	5 minutes - Introduction/Goal statement 3 minutes - Audio-tape (optional) 12 minutes - Review files 15 minutes - Select classroom variables 2 minutes - Record team results on "TOTE" cards 3 minutes - Change groups TOTAL: 40 minutes
ROUND II	All Teams: From the multiple perspectives of regular and special education, to negotiate a composite classroom which will promote success for both regular and handicapped students.	Composite groups with 4 players each (2 from Round I R-Team and 2 from Round I S-Team).	*"TOTE" cards *Composite classroom board *Classroom variable cards *One classroom profile and one student profile for each team.	5 minutes - Goal statement 10 minutes - Share Round I results 15 minutes - Negotiations 2 minutes - Record team results on "TOTE" cards TOTAL: 32 minutes
ROUND III DEBRIEFING	To share: a) impressions (I felt...), b) reflections (I did...), c) interpretations (I was...), d) decisions (I will...), related to the simulation game experience and its implications for transferring to "real world" practices.	TOTAL GROUP (Heterogeneous group of regular and special educators with between 24-48 participants found to be optimum.)	ROUND I - Summary ROUND II - Summary Discussion/Questions Evaluation forms	15 minutes - Debriefing 5 minutes - Evaluation TOTAL: 20 minutes Approximate Total Time: 1½ hours

Appendix D

POSITION _____

DISTRICT _____

SCHOOL _____

ABOUT THE SIMULATION GAME . . .

ORGANIZATION: ( )well organized ( )adequate ( )inadequate ( )confused

VALUE: ( )very useful ( )somewhat useful ( )of little value ( )useless

FORMAT: ( )very interesting ( )interesting ( )monotonous ( )uninteresting

GAME MATERIALS: ( )very helpful ( )helpful ( )distracting ( )very distracting

OPPORTUNITIES FOR DISCUSSION: ( )a lot ( )some ( )not much ( )almost none

INTERACTION AMONG PARTICIPANTS: ( )a good deal ( )some ( )not much ( )none

PACE OF ACTIVITIES: ( )just right ( )fairly good ( )too fast ( )too slow

LEVEL: ( )suitable ( )almost suitable ( )above participants ( )below participants

Did you learn anything from the content and activities of this workshop? (check one or more as appropriate)

_____I was engaged in learning throughout the workshop.

_____I was refreshed and reminded of things I already knew.

_____I learned little.

_____I gained a new perspective on mainstreaming.

What influence will what you learned at this workshop have in your daily work? (check one or more as appropriate)

_____Little or no influence.

_____Will cause me to read, think or study in the area some more

_____Will cause me to attempt some new practices.

_____Will cause me to make major changes in the way I perform my job.

GENERAL COMMENTS

SPECIFIC SUGGESTIONS

APPENDIX E

SANTA BARBARA COUNTY SCHOOLS

Office of the Superintendent

4400 Cathedral Oaks Rd. (P.O. Box 6307), Santa Barbara, Calif. 93111 / (805) 964-4711

April 7, 1978

Dear Resource Specialist:

THANK YOU FOR TAKING A FEW MINUTES OUT OF YOUR BUSY DAY TO READ THIS!

We have been working on a State funded research project to develop inservice materials for regular classroom teachers to assist them in successfully integrating handicapped children. The instructional method we have used is simulation game design. If you have had experience with this method, you know that it has the possibility of allowing participants to experiment with alternatives and get feedback on consequences in a safe yet realistic and challenging setting. The content focus for these materials is classroom management systems, selected on the basis of input from regular and special educators in Santa Barbara County. The materials have been tested out and "debugged" with a small pilot group of teachers. From the initial feedback, we feel confident that these materials are useful, relevant and exciting to use. However, before we can make this claim with any sort of confidence, we need to validate them in a more substantial way.

The research design which will be used involves a randomly assigned experimental and control group of regular class teachers. (The experimental group will participate in the inservice session this school year, while the control group will not.) Teachers in both groups will be asked to complete an attitude survey and follow-up interview. The results will then be compared to determine if the materials make a positive significant difference in teachers' tolerance and confidence in serving handicapped students in the mainstream. If the materials prove to be useful, they will be made available for state and nationwide distribution; if not -- well, it's back to the drawing board and at least we won't have flooded the field with another unproven product.

Well, you are probably asking: 1) What am I being asked to do? 2) What's in it for me? and 3) What steps are to be completed?

1. WHAT ARE YOU BEING ASKED TO DO?

RECRUIT: Gain the commitment of at least 3 teachers at your school site to participate in this project.

ARRANGE: If your school site is selected as part of the experimental group:

- Act as a link between project staff and teachers at your school in arranging inservice date and time
- Participate in an inservice session during May 1978 (approximately 1-1/2 hours)

2. WHAT'S IN IT FOR YOU?

OPPORTUNITY: You will have an opportunity to participate in the validation of inservice materials, directed at facilitating the role of Resource Specialist as consultant to the regular class teacher.

FAME: You will be cited as a contributor.

CONSUMER ADVOCACY: As a practitioner, you will have a say in developing materials which are practical and relevant in the schools.

BONUS: Upon completion of the project, you will receive a copy of the inservice materials.

3. NOW, IF YOU'VE DECIDED THAT YOU WOULD LIKE TO PARTICIPATE, PLEASE COMPLETE THE FOLLOWING STEPS:

CONTACT: Contact those teachers on your faculty whom you think would be interested in participating in this project and describe the request to them.

COMPLETE: Have those teachers who indicate a willingness to participate complete the Special Education Inventory (see enclosures).

COLLECT: Collect the completed inventories. Record the teacher's name and inventory number (found in the lower right hand corner of the inventory) on a separate sheet of paper. Keep this for future reference. Assure the teachers that no personally identifiable information will be collected on them. The numbers will only be used for the random assignment of teachers to the experimental or control group.

SIGN-OFF: Have your principal sign-off on the packet, indicating his/her knowledge and consent for participation in the project.

RETURN: Return the packet of completed inventories to me by May 3 through the County Truck Delivery Service:

Andrea Carroll
Special Education Department
Santa Barbara County Schools Office

Should you have any questions, concerns or comments, please feel free to contact me collect at (805) 964-4711, extension 289.

If this project is of interest to you, I look forward to working with you and some of the faculty at your school. In any event, thank you very much for your time and attention.

Sincerely,

Andrea Carroll

Andrea Carroll, Director
Special Education Research Project

AC/ml

Enclosures:

- 10 Special Education Surveys with directions for completion
- Sign-off sheet for Principal
- Return envelope
- Inventory Number Record Form

cc: District Director of Special Education

Teacher's Name_____

Instructions For Completing

SPECIAL EDUCATION INVENTORY

1. Fill in the requested background information at the top of the page.
2. Below you will find a brief description of Philip, a child with exceptional learning needs. Please read it carefully. Following the description are ten statements concerned with the possible effects of placing a child like Philip in a regular classroom. Please indicate your response to each of the statements by placing a check above the rating that corresponds to the degree to which you agree or disagree with the statement. There are no right or wrong answers to any statement. Please use your best subjective judgment in rating each item. The description of Philip probably does not contain all of the information that you would like in order to respond to certain items. However, please use your best judgment based on the information that is provided.
3. Return the completed inventory to the Resource Specialist at your school by April 28.

Thank you.

SPECIAL EDUCATION INVENTORY*

efore completing this inventory, please fill in the background information requested below:

School_____ District_____

rrent grade level taught_____ Years of professional teaching experience_____ Approximate number of hours of special education course work (preservice or inservice)_____

EMBER, EACH STATEMENT THAT FOLLOWS WILL REFER TO THE EFFECTS OF HAVING A CHILD LIKE PHILIP IN YOUR REGULAR CLASSROOM. EVEN THOUGH YOU MAY NOT TUALLY TEACH IN A CLASSROOM AT THE AGE LEVEL OF THE CHILD, PLEASE ASSUME FOR THE MOMENT THAT YOU DO AND RESPOND TO EACH ITEM ACCORDINGLY.

Philip

Philip is a nine-year-old boy who lives with his father in a middle class neighborhood. Philip's mother died when he was four years old, and his father has had increasing difficulty controlling him during recent years. Philip is often on the streets at night or watching television until early morning hours. Many of Philip's friends are teenagers, and he has been involved in several incidents of vandalism with them in the neighborhood. Philip has also had continuing problems in school. His I.Q. is 102 on an individual intelligence test, but his present reading and arithmetic skills are on the second grade level, two years below expectation. He has been diagnosed as having a problem in visual perception and hand-eye coordination; yet an eye examination has indicated that he does not need to wear glasses. His teacher reports he is an easily frustrated boy who often fails to follow directions when given a class assignment. He was in special class for one year and is now integrated into a regular classroom with support from the resource specialist program.

	strongly disagree	disagree	slightly disagree	slightly agree	agree	strongly agree
A visitor to your classroom would not be able to pick out a child like Philip on the basis of his behavior.						
A child like Philip will be motivated to learn in your classroom.						
It is unlikely that any of the other children in your classroom will form a friendship with a child like Philip.						
Over the school year a child like Philip can be expected to make a normal year's progress in arithmetic in your classroom.						
The experience of being in your classroom will increase the chances of a child like Philip attaining a more productive and independent place in society.						
Teaching a child like Philip will increase your overall teaching competence.						
With a child like Philip in your classroom an excessive amount of time for curriculum planning will be necessary.						
With a child like Philip in your classroom there will be an increase in the number of behavior problems among the other children.						
Even though Philip has been placed in your regular classroom, the resource specialist should assume major responsibility for dealing with learning and behavior problems that arise.						
There will be more problems with the parents of a child like Philip than with the parents of other children.						

*Adapted from: *Learning Handicapped Integration Inventory*, UCLA Special Education Research Program, © 1974.

PRINCIPAL CONSENT FORM

The Resource Specialist has described to me the special education inservice research project. I understand that these teachers, whose inventories are being submitted in this packet, have agreed to participate as members of either an experimental or control group, which will be decided through a county-wide random selection process.

If selected as part of the *experimental* group, the teachers will be expected to:

1. Participate in one inservice session, lasting approximately 1-1/2 hours, to be held during May, 1978. (This session will not be held during scheduled class time. If any travel is involved in getting to and from the session, participants will be fully reimbursed by the County Schools Office.)

2. Complete an evaluation format after the inservice session.

If selected as part of the *control* group, the teachers will be expected to:

1. Complete a questionnaire related to integrating handicapped students into their classrooms.

If the materials are favorably received by the experimental group this school year, they will be made available to all school sites in the county next year.

I also understand that no personally identifiable information will be reported on the basis of teacher name or school site.

Signed: _____ Date: _____

Principal

School: _____ District: _____

School_____ District_____

NOTE TO RESOURCE SPECIALIST:

Please record the names of all teachers on your faculty who have completed a Special Education Inventory and agreed to participate in this inservice research project. After each name, record their number, found in the lower right hand corner of each inventory.

Submit the completed inventories without names to the County Schools office, but keep this list at your school site, for future reference. We will be asking teachers to complete another evaluation form after the inservice session, and will, therefore, need to match up numbers and names.

TEACHER'S NAME	INVENTORY NUMBER

Appendix F

SANTA BARBARA COUNTY SCHOOLS

Office of the Superintendent

4400 Cathedral Oaks Rd. (P.O. Box 6307), Santa Barbara, Calif. 93111 / (805) 964-4711

Instructions for Completing
SPECIAL EDUCATION INVENTORY

1. THANK YOU FOR TAKING A FEW MINUTES OUT OF YOUR BUSY DAY AT THE END OF THE SCHOOL YEAR TO COMPLETE THIS FOLLOW-UP SURVEY! Your response is needed in order to finalize the research results on the inservice materials, related to integrating handicapped students into the regular classroom.

2. If you were in the "Experimental Group" and came to the inservice session last week, thank you again for your participation and for agreeing to complete one more form.

   If you were in the "Control Group" and did not attend the inservice session, thank you for agreeing to complete another survey form. The Resource Specialist at your school will be receiving a complete inservice kit so that it will be available to you next Fall.

3. On the next page, you will find a brief description of Philip, a child with exceptional learning needs. Please read it carefully. Following the description are 30 statements concerned with the possible effects of placing a child like Philip in a regular classroom. Please indicate your response to each of the statements by placing a check above the rating that corresponds to the degree to which you agree or disagree with the statement. There are no right or wrong answers to any statement. Please use your best subjective judgment in rating each item. [The description of Philip probably does not contain all of the information that you would like in order to respond to certain items. However, please use your best judgment based on the information that is provided.

4. Return the completed inventory in the stamped-addressed envelope by Monday, June 12.

   Thank you!

Sincerely,

Andrea Carroll

Andrea Carroll, Director
Special Education Research Project

AC/ml

Enclosures

EACH STATEMENT THAT FOLLOWS WILL REFER TO THE EFFECTS OF HAVING A CHILD LIKE PHILIP IN YOUR REGULAR CLASSROOM. EV THOUGH YOU MAY NOT ACTUALLY TEACH IN A CLASSROOM AT THE AGE LEVEL OF THE CHILD, PLEASE ASSUME FOR THE MOMENT THAT YOU DO AND RESPOND TO EACH ITEM ACCORDINGLY.

PHILIP

Philip is a nine-year-old boy who lives with his father in a middle class neighborhood. Philip's mother died when he was four years old, and his father has had increasing difficulty controlling him during recent years. Philip is often on the streets at night or watching television until early morning hours. Many of Philip's friends are teenagers, and he has been involved in several incidents of vandalism with them in the neighborhood. Philip has also had continuing problems in schoo His I.Q. is 102 on an individual intelligence test, but his present reading and arithmetic skills are on the second grade level, two years below expectation. He has been diagnosed as having a problem in visual perception and hand-eye coordinatio yet an eye examination has indicated that he does not need to wear glasses. His teacher reports he is an easily frustrated boy who often fails to follow directions when given a class assignment. He was in special class for one year and is now integrated into a regular classroom with support from the resource specialist program.

	strongly disagree	disagree	slightly disagree	slightly agree	agree	strongly agree
1) Grades will be an effective reward for achievement for child like Philip.	:	:	:	:	:	:
2) A child like Philip will maintain satisfactory attendance in your classroom.	:	:	:	:	:	:
3) Over the school year a child like Philip can be expected to make satisfactory progress in arithmatic in your classroom.	:	:	:	:	:	:
4) Over the school year a child like Philip can be expected to make satisfactory progress in reading in your classroom.	:	:	:	:	:	:
5) Even though Philip has been placed in your regular classroom, the resource specialist should assume major responsibility for dealing with learning and behavior problems that arise.	:	:	:	:	:	:
6) A child like Philip will likely form a positive relationship with you, the teacher.	:	:	:	:	:	:
7) With a child like Philip in your classroom, there will be an increase in the number of behavior problems among the other children.	:	:	:	:	:	:
8) With a child like Philip in your classroom, an excessive amount of time for curriculum planning will be necessary.	:	:	:	:	:	:
9) There will be more problems with the parent of a child like Philip than with the parents of the other children.	:	:	:	:	:	:
10) Placement of a child like Philip in your classroom will likely result in his becoming socially withdrawn.	:	:	:	:	:	:
11) A child like Philip will develop a more positive self-concept as a result of being placed in your classroom.	:	:	:	:	:	:
12) Referrals to the school principal for disciplinary action will probably occur more frequently for a child like Philip than for other children in your classroom.	:	:	:	:	:	:
13) Teaching a child like Philip will increase your overall teaching competence.	:	:	:	:	:	:

	strongly disagree	disagree	slightly disagree	slightly agree	agree	strongly agree
14) There will be an increase in classroom management problems with a child like Philip in your classroom.	:	:	:	:	:	:
15) The experience of being in your classroom will increase the chances of a child like Philip attaining a more positive and independent place in society.	:	:	:	:	:	:
16) A child like Philip will likely form positive social relationships with other children in your classroom.	:	:	:	:	:	:
17) As a result of placement in your classroom, a child like Philip will develop a more positive attitude toward school.	:	:	:	:	:	:
18) The presence of a child like Philip in your classroom will be a cause for complaints from the parents of the other children.	:	:	:	:	:	:
19) A visitor to your classroom would not be able to pick out a child like Philip on the basis of his behavior.	:	:	:	:	:	:
20) It is unlikely that any of the other children in your classroom will form a friendship with a child like Philip.	:	:	:	:	:	:
21) Even though Philip has been placed in your regular classroom, special education should assume major responsibility for dealing with learning and behavior problems that arise.	:	:	:	:	:	:
22) A child like Philip will not respond even to your best teaching efforts.	:	:	:	:	:	:
23) A child like Philip will be disruptive in your classroom.	:	:	:	:	:	:
24) A child like Philip in your classroom will adversely affect the other children's motivation to learn.	:	:	:	:	:	:
25) A child like Philip will be motivated to learn in your classroom.	:	:	:	:	:	:
26) The other children in your classroom will be apt to make a scapegoat of a child like Philip.	:	:	:	:	:	:
27) Even though Philip has been placed in your regular classroom, the school principal should assume major responsibility for dealing with learning and behavior problems that arise.	:	:	:	:	:	:
28) Assignment of a child like Philip to your classroom is a wise administrative decision.	:	:	:	:	:	:
29) The other children in your classroom will be apt to tease a child like Philip.	:	:	:	:	:	:
30) Having a child like Philip in your classroom, will cause you to make changes in your teaching style.	:	:	:	:	:	:

*Adapted from: *Learning Handicapped Integration Inventory*, UCLA Special Education Program, © 1974.

#_____

REQUEST FORM

If you would like further information or a copy of the "Simulation Director's Guide," please address your inquiries to:

Andrea Carroll
Special Education Department
Santa Barbara County Schools
Post Office Box 6307
Santa Barbara, California 93111

NAME:_____ DATE:_____

MAILING ADDRESS:_____

_____

(Please print)

REQUEST:_____

_____

_____

_____

_____

_____